Tribal College and University Research Journal

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TRIBAL COLLEGE AND UNIVERSITY RESEARCH JOURNAL
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Welcome
Cheryl Crazy Bull, President & CEO
American Indian College Fund

Mitakuyepi.

Greetings, relatives.

Recently, I wrote an essay for the *Tribal College Journal* discussing indigenous studies, its evolution in the tribal education world, and how I've seen research, scholarship, pedagogy, and relationships influence tribal colleges and tribally-controlled education. What an exciting experience because I was able to reflect back to the early years of the tribal college movement and come forward to today when we have so much that we are sharing about who we are and we have so many of our scholars who are doing the sharing.

For many years, there has been an emergent and creative experience of community-based participatory research occurring in indigenous communities. I say emergent even though it is decades old, because we are still learning what it means to engage our own people in research that is meaningful to our lives and creative because we are finding ways to own the definitions, processes, experiences, and outcomes of research as our own as indigenous people.

This emergent and creative experience exists within our own tribal colleges and universities as a path to continued restoration of our ways of living and as a path to prosperity and revitalization. As tribal college faculty engage research in their communities, they are responding to pressing and often debilitating social, physical, and economic issues. They are doing so collaboratively, openly, and with good intentions toward a better society for all.

This second volume of our *Tribal College and University Research Journal* continues our support of the emergent and creative experiences of research and scholarship of

tribal college faculty, their students, and their communities. We continue to celebrate our identities, embrace our commitment to student success, and sustain our hope for a better future.

Wopila, thank you.

Introduction: *On the Importance of Publishing Research from Tribal Colleges and Universities*
Ethan Yazzie-Mintz, Editor-In-Chief
Tribal College and University Research Journal

Conducting and analyzing research as an undergraduate was a valuable and unique experience. The skills and knowledge that resulted from this experience still resonate strongly in my studies and in most other areas of my life as I approach graduation. We three student researchers were involved in every step and aspect. We were given the opportunity to provide a platform for our fellow students to voice their concerns, share their challenges, and offer possible solutions. The reciprocal relationship of community and spirit manifested itself with this study.

In *Behavioral Health Survey of TCU Students by Students: Learning About and Through Research*, one of the articles in this journal issue, a student researcher on the team at Northwest Indian College that conducted a survey of student behavioral health within their college community reflects above on the experience and opportunity of participating as an undergraduate in this campus research project, and captures (whether consciously or not) the uniqueness of research at tribal colleges and universities (TCUs).

Community and spirit. A reciprocal relationship. In the context of a research project in higher education.

Research by definition and in practice is about *inquiry*, asking and answering questions through systematic methods of investigation. Methods vary depending on the questions being asked: quantitative methods for those questions that can be answered through statistical and numerical analysis; qualitative methods for those questions that require knowing and understanding individuals' perceptions, viewpoints, and descriptions; historiographical methods for research into archives and historical records; theoretical methods for the analysis of abstract questions; and so forth, including a combination of methods where appropriate to pursue answers to research questions. Scale can vary as well, from quantitative analysis of a large-scale

data set of student persistence and retention rates in higher education, to a qualitative investigation of the work of a small number of teachers in an early childhood classroom. All of these types of studies are published regularly in academic journals, and all of these types of studies have been published in American Indian College Fund journals.

What distinguishes the research emerging from TCUs? Community and spirit. Research at TCUs is intimately connected to the communities served by the TCUs, and is conducted in the spirit of those communities. While meeting the general standards of inquiry and investigation in conducting research, the research emerging from TCUs also meets the additional standard of addressing a question of importance to the communities they serve; the purpose of inquiry at TCUs is consistently focused on improving and strengthening the community. In this way, the issue of scale takes on a different meaning in research at TCUs in contrast to research conducted in other settings. While research in other settings can certainly impact (or aim to impact) communities, research in those settings may (and often does) only have a small impact outside of the impacts on the researchers themselves (incentivized by promotion requirements at institutions of higher education). By contrast, TCUs, as teaching institutions, do not require research by the faculty; therefore, research at TCUs is a voluntary pursuit focused on answering questions important to the community, driven by mission and purpose. The scale of impact of this kind of research is consistently large: the institution itself, the communities the TCU serves, generations of community members in the future.

Community and spirit. The uniqueness of research at TCUs. And a succinct articulation of the need to publish research that emerges from TCUs.

All of the articles in this current issue are exemplars in different ways of the uniqueness of research at TCUs, and strong arguments for both the challenges of and the absolute need to publish research from TCUs. This issue, Volume 2 of the *Tribal*

College and University Research Journal (*TCURJ*), is the third issue of the *TCURJ* published by the American Indian College Fund and the fifth issue in the College Fund's *Tribal College and University Publication Series.* The original mission of the publication series has stayed consistent: to provide an opportunity for TCU faculty and staff to submit manuscripts based on research to a journal that is designed with the TCU context at the forefront. The initial two issues in the series focused on those scholars at TCUs who had received Mellon Foundation Fellowships through the College Fund, and had conducted research as part of the fulfillment of their fellowships. In keeping with the process used by many academic journals, submitted manuscripts were reviewed by external scholars; in a process unique to this publication series, authors then worked with the editor to make use of the reviewers' comments and prepare the accepted manuscripts for publication. Building on the success of the first initiative in the publication series, the *TCURJ* was started, providing an opportunity for all TCU faculty and staff to submit manuscripts to an academic journal, and to engage in the review and publication process.

The challenges of publishing an academic journal focused on research at TCUs are significant. For one, there is a limited pool of authors. It is critical to the success of the mission of the *TCURJ* that the lead writer on published articles is a faculty or staff member at a TCU; with fewer than 40 TCUs, there is a finite number of potential authors. Second, TCUs are teaching institutions; the focus on educating students is paramount. This further limits the pool of potential authors, as many faculty and staff members do not conduct research. By contrast, at the vast number of four-year institutions of higher education in the country and in the world, research is both required and incentivized for faculty. Third, since research is not a requirement at TCUs, and faculty are hired primarily for reasons other than their research and publication skills, there is a wide range of knowledge and experience in this area among TCU faculty and staff. The peer review process in most academic

journals is designed as a dichotomized accept/reject decision-making construct, with "revise and resubmit" as an option; most academic journals pride themselves on their "selectivity," the small number of submitted manuscripts that make it to publication. The challenge of this publication series is to disseminate and strengthen research and published writing from TCUs, while publishing articles of the highest quality; quality rather than selectivity aligns with the mission.

How, then, can a journal be published with a limited pool of potential authors, who enter the process with varying levels of skills, knowledge and experience in research and publication, while attempting to publish high-quality articles that can have an impact on communities and the broader field of research? This is exactly the key to understanding the importance of the College Fund's publication series. While there is a limited pool of potential authors, there is an enormous wealth of knowledge within TCUs. TCUs are tightly connected to the communities they serve, and therefore TCU research is tightly connected to the needs of the communities. Since research is not necessarily a requirement for faculty or staff at these teaching institutions, the research that is conducted is voluntarily pursued, with a purpose and mission as guide rather than faculty promotion; with these goals, research is often more relevant and useful to greater numbers of people. To get this research to publication, traditional ways of operating need to be reconceived; peer reviewers, who in mainstream journals serve as gatekeepers, can serve a role as advisors and "gate-openers" for these authors and these articles, with a focus on improvement and quality, rather than merely initial judgment of a manuscript.

The type of research conducted at TCUs is actually at the leading edge of academic research. While narrow definitions of research prevail at most four-year research institutions of higher education, a movement has been ongoing in recent years to find ways to value work that is outside the traditional parameters of research — i.e., work that takes place in communities, work that addresses questions of interest

and importance to not just the researcher but to people who will be impacted by the research, and work that looks to improve programs, curriculum, and pedagogy conducted by those implementing the program or doing the teaching (e.g., teacher research, reflective research and practice). These institutions, often against opposition from traditionalists, attempt to put this work into a category of value for faculty, such as "scholarship of engagement" or "community-engaged scholarship." The Harvard University Graduate School of Education has started a project called, "Usable Knowledge," with the purpose of "providing insight into what works in education — translating new research into easy-to-use stories and strategies."

This is what research at TCUs already does: engages communities in research; improves programs, curriculum, and pedagogy; and generates "usable knowledge." This is why the need for a journal such as *TCURJ* is critical. And this is what the articles in Volume 2 of the *TCURJ* accomplish.

Online learning is growing exponentially within institutions of higher education as a means of reaching larger numbers of students over great distances; TCUs have employed online learning as a way of connecting students among multiple campuses and across the vastness of tribal lands. In *Team Teaching Native American Studies Online: Cultural Challenges and Educational Benefits*, Vernon Lambert of Cankdeska Cikana Community College (CCCC) and John Peacock of the Maryland Institute College of Art (MICA), both Spirit Lake tribal members, explore the use of technology and online learning to link students from their two institutions in a forum for connection and learning. Lambert and Peacock document and analyze the learning that takes place and the challenges they encounter — in pedagogy, ways in which students learn and participate, and understandings of Native American history and the current status of American Indian students and citizens.

Leilani Ignacio and a team of student and faculty researchers at Northwest Indian College (NWIC) document a process of creating, administering, and analyzing

a survey of NWIC students' behavioral health, in *Behavioral Health Survey of TCU Students by Students: Learning About and Through Research*. The project has two purposes: one, to understand the status of students' behavioral health and make recommendations to the college administration based on their analysis in order to improve student achievement, success, and retention; and two, to teach and mentor undergraduate students in the research process, from creation of the survey through data collection and analysis, and production of final recommendations. Ignacio and her team look at both the qualitative data from the survey and the process of learning about research through the project, while laying the foundation for further analysis of survey data.

Posoh, in the Menominee language, means "hello," a greeting. *POSOH* is also the acronym for an educational project of the Sustainable Development Institute (SDI) of the College of Menominee Nation (CMN), *Place-based Opportunities for Sustainable Outcomes and High Hopes*. Despite attacks on ancestral lands throughout history, the Menominee Nation has maintained and sustained forest lands in northeastern Wisconsin, a stretch of land that "can be identified from outer space," due to the success of the Menominee in preserving and growing the Menominee Forest. Using the SDI model of sustainability, Christopher Caldwell and a team from CMN, the Menominee community, and collaborating institutions, in *The POSOH Project: Collaboratively Supporting a Community-Driven Perspective on Sustainability and Commitment to the Menominee Forest's Stewardship*, document the theoretical foundations, development, implementation, and impact of the POSOH project, a collaborative educational project with three components: place-based science curriculum, teacher professional development, and student leadership development through action research projects. Starting locally, POSOH is a model for communities to strengthen science curriculum through partnerships, collaboration, and innovation in science education.

Faculty professional development is a regular part of the work of most institutions of higher education. In *Perceived Faculty Professional Development Needs at Tribal Colleges and Universities*, Ahmed Al-Asfour and Suzanne Young ask these research questions in their study of TCU faculty: *In what areas do faculty perceive they need professional development? What strategies do faculty perceive as successful in terms of professional development?* Surveying 126 faculty members at 13 TCUs, Al-Asfour and Young find that faculty perceive their professional development needs to be, on the whole, greater than they perceive the success of the professional development strategies implemented at their TCUs. Al-Asfour and Young analyze their survey data to come up with recommendations to address this gap between perceived needs and perceived success of faculty professional development.

Health and wellness are critical areas of focus and concern in Native communities. Having strong community data is the first step to creating programs and interventions to address issues of health and wellness; unfortunately, strong data in these areas are often lacking in Native communities. To address this gap in knowledge within the Spirit Lake tribal community, Cankdeska Cikana Community College (CCCC) and Essentia Institute of Rural Health (EIRH) collaborated to create, implement, and analyze the Spirit Lake Nation Comprehensive Community Assessment, a mixed-methods assessment utilizing both surveys and interviews to gain a deep understanding of the status and health needs of the Spirit Lake Nation members. Cynthia Lindquist of CCCC, along with Jennifer Boeckel, Danielle Myers-Wilson, and Pat Conway of EIRH, in *Factors Influencing Health and Wellness among American Indians Living in Rural, Tribal Communities*, find that two strategies are key in strengthening community health within the Spirit Lake Nation: protecting children from adverse childhood experiences, and improving access to quality health care, particularly mental health care and substance use treatment.

These five articles focus in different areas of inquiry, ask different research questions, and utilize different methodologies to investigate the questions. But each represents the uniqueness of research emerging from TCUs — the attempts to use inquiry and analysis to impact the community in a positive way — and, put together, these articles exemplify the diversity and depth of knowledge generated at TCUs.

As the College Fund takes steps to make the *TCURJ* a sustainable and enduring publication, much appreciation is due to the College Fund staff for its support and advocacy for both the dissemination of this research knowledge from TCUs to the world and the use of research and publication as a faculty development strategy. In particular, Dr. David Sanders, Vice President of Research, Evaluation, and Faculty Development, Dr. Natalie Youngbull, Faculty Development Program Officer, and Dr. Cheryl Crazy Bull, President and CEO, have been instrumental in the development and advancement of this project.

The knowledge generated from TCUs and shared by these researchers and authors in the *TCURJ* have the power to impact generations of Native communities. Because this knowledge is now out in the world, other communities can learn lessons from this research and make use of the work as well.

This is what TCUs do. This is what research emerging from TCUs is: High-quality, purposeful, relevant, mission-focused research that serves the needs of communities in the spirit of those communities. Community and spirit, in a reciprocal relationship, with the purpose of generating new knowledge to address important issues. Enjoy these articles in Volume 2 of the *Tribal College and University Research Journal*, and thank you for being part of the larger work of getting this important knowledge out into the world.

Team Teaching Native American Studies Online: Cultural Challenges and Educational Benefits

Vernon Lambert, Cankdeska Cikana Community College
John Peacock, Maryland Institute College of Art

Abstract

Online learning and distance learning have been utilized for a variety of purposes in higher education: to provide instruction and learning opportunities for students at a distance from campus; to connect students at multiple sites within one online venue; and to provide pre-college instruction to those seeking opportunities for advanced learning. In Native communities, the use of technology in higher education is a way of connecting students to higher education (particularly to tribal colleges and universities) across the great distances of tribal lands. In this article, Vernon Lambert and John Peacock, two Spirit Lake Tribal members, document and analyze their own piloting of an online team-taught hybrid Native Studies course across a distance of 1500 miles. Lambert teaches on the reservation, as a Dakota Studies instructor at Cankdeska Cikana Community College; Peacock teaches off the reservation at the Maryland Institute College of Art. From their classrooms at their respective institutions, the two faculty members use technology to engage their students in a face-to-face course with an online component, examining the challenges both they and their students encounter, as well as the successes of the pilot — in pedagogy, student engagement and participation, learning across distance and culture, and effective learning of course content.

Introduction

The authors of this article are both Spirit Lake Tribal members. Vernon Lambert, aged 79, teaches Dakota Thought, Philosophy, and Culture at the tribal college, Cankdeska Cikana (Little Hoop) Community College (CCCC), in Fort Totten, North Dakota. John Peacock, 68, teaches Native American Studies in Baltimore at the Maryland Institute College of Art (MICA), where there are very few Native American students.

Having taught our courses separately for many years, in fall 2015 we partially merged and team-taught them online from the same classrooms that we teach our own students in face-to-face. MICA and CCCC students used the online learning

management system MOODLE to have asynchronous discussions about PowerPoint lectures video-captured or delivered live over Adobe Connect, which we also used for videoconferences between the two classes. Each class also continued to hold separate face-to-face meetings.

We both came to this experiment wondering whether our students could better achieve together our very different learning objectives:

> **CCCC:** *The main objective of the CCCC course was to help tribal college students learn to understand and balance their dual status as citizens of a sovereign nation predicated on the traditions of an originally oral civilization and as US citizens of a nation of laws promulgated in writing.*

> **MICA:** *The main learning objective of the MICA course was to help non-Native students challenge the stereotype that American Indians still live entirely traditional lives and are therefore inevitably going to continue being passed over as part of America's Manifest Destiny.*

The fact that both MICA and CCCC students of this generation spend so much of the rest of their lives online raised the possibility in our minds that CCCC students could learn to better balance being tribal and US citizens by interacting digitally with non-Native US citizens their own age, and that non-Native MICA students could learn to blast the stereotype of Indians living in the past by interacting with their tribal college peers in the digital present.

Context

American Indians are the least represented minority in American higher education. In order to increase their college recruitment and retention, the U.S. Department of Education recommends that tribal community college students take courses from four-year colleges while still in tribal community colleges (U.S. Department of Education, 2003). Distance education is one way Indian students on

remote reservations can take such courses. They might find colleges of art and design particularly suitable, since like tribal college students themselves, art and design students tend to be non-traditional learners in the sense that they mainly learn by performing, practicing and participating in cultural activities, rather than by engaging in academic discussion. They tend to be "doers" and "makers" — not "big talkers" (Pewewardy, 2002; Price, Kallam, & Love, 2009).

Despite this potential suitability, to successfully recruit and retain tribal college transfer students, art and design colleges must do better than other mainstream higher education institutions in understanding and addressing the cultural reasons that lead some tribal college students to perceive mainstream colleges and universities as alien environments. Based on our experiences teaching together, this article discusses some ways in which institutions can address these perceptions. Charged with teaching his students to balance being both oral traditional Dakota and literate Americans, Lambert (and some of his students) confirmed what Peacock's review of relevant research had found: Native American students sometimes feel that academic reading, writing or speaking can seem impersonal, exclusive of ordinary people, or dubiously authoritative, compared to the oral stories they hear or tell in their homes or other familiar cultural settings, where it is inappropriate to assert ideas as if they are absolutely factual rather than mainly experiential and felt.

In the traditional tribal culture of the students who took part in this class, a young person especially does not state opinions unequivocally in competition (explicit or implicit) with peers. Doing so can feel like "acting white," "selling out," disrespecting or betraying one's own culture, especially in front of non-Natives during discussions of race and ethnicity at mainstream colleges and universities, where transfer students from tribal colleges may already feel at odds. The frequent presumption in mainstream higher education that every Native student must already possess the knowledge to speak for and about the whole of his or her culture's

experience runs counter to tribal cultural norms that teach young students not to be so presumptuous. They come to college to listen and learn, not to speak authoritatively. No wonder they often feel anxious and insecure in classrooms when they are expected to ask questions and express opinions (Sorkness and Kelting-Gibson, 2006).

Trading Visits

We never would have ended up teaching together if we had not visited each other's classes several times in person over the years to guest lecture about our very different experiences as contemporary Dakota: Lambert living on the reservation as both a US and tribal citizen; Peacock growing up, living, and working off the reservation (like the majority of American Indians today), sometimes knowing no more than non-Indians about being Indian.

Not surprisingly, we didn't have enough time with each other's students on these visits. On Lambert's first visit to MICA, for example, students didn't ask many questions because, indeed, most of them had never even seen an Indian except on the silver screen, didn't know that Indians existed anymore, and were just in awe of one that did, as if he had stepped out of the past.

Online Forums and Face-to-Face Communication

When Lambert was invited back to MICA for a second visit the following year, he was asked and agreed to join an online discussion forum before he came. Such forums had already become a way for Peacock to get students to discuss reading assignments online before class so that they would be better prepared to talk face-to-face. Forums also gave them additional time and opportunity to come up with questions after lectures, and gave students who were shy speaking in class another way to participate. Peacock would usually assign a couple of students to post some

questions about an assignment for the rest to answer online. He would begin in-class discussions by asking which questions had already been answered online and didn't need to be further discussed; which questions asked online still needed to be discussed in class; and which questions were never raised online but needed to be in class. Finally the forums served as an archive for students to return to and find threads running through as they came up with questions for paper topics and possible exam questions.

MICA students asked Lambert many more questions in class on his second visit because an online discussion forum with him before the face-to-face class had allowed them extra time to think about and revise what they wanted to say to him. Because he had already answered some of their questions online, the face-to-face conversation began on a higher plane. After he left and totally on their own, a few MICA illustration students continued communicating with him online, only not just in words: they produced graphics for him to incorporate into the PowerPoint presentation he gave them on Dakota dual citizenship, a talk he mentioned he also gave to tribal college students, about whom MICA students asked an abundance of questions, mainly having to do with whether their CCCC peers lived traditional lives and had exactly the same values as their elder, or whether they had cell phones and laptops and went online — that is, lived in the same digital present as MICA students — questions the latter were still a little hesitant asking Lambert, especially in front of their MICA professor, but were fine asking him online.

Maybe if they hadn't remained hesitant with him in person, we would have continued to try to raise the funds to bring Lambert from North Dakota to Baltimore every year. But since MICA students seemed as comfortable with the virtual as the face-to-face elder, especially when communicating with him about whether his students were digital natives like themselves, we got the idea that it would be more effective and economical simply to digitally connect our classes.

When we did, we discovered that MICA students who were used to participating online in the above ways as a required part of the course participated in both asynchronous and synchronous discussions far more than CCCC students who had less experience with asynchronous forums and were not graded for participating in them.

Cultural Challenges

Even before Lambert first met with his own 2015 tribal college class, he cautioned Peacock that videoconferencing with MICA students might make tribal college students feel like they were being "looked at," as he put it. He therefore limited the number of video conferences to eight and their duration to fifteen minutes; declined a request from MICA that his students sit closer to the camera and microphone so that MICA students could hear and see them; and himself appeared in front of the camera and close to the microphone so that, for the benefit of MICA students, he could repeat the few comments his students made as they sat behind him in rows of the classroom, largely out of camera range and inaudible (until the very last videoconference, about which more later.) For their part, MICA students and their professor appeared all together around their clustered desks, with the camera and microphone turned to whoever was speaking and with Peacock encouraging them to speak up so they could be heard.

CCCC   MICA

Other cultural differences in the two classrooms included a greater number of CCCC than MICA absences and late arrivals (Lambert explained "Indian time" by comparing it to Japanese "just in time" problem solving). When MICA students once asked if CCCC students had read an article that a MICA student posted online, there was a pregnant pause, broken by Lambert himself: "this is an oral class," he said.

If it's an oral class, MICA students wondered in a MICA-only, face-to-face discussion after the videoconference, how come only the traditional elder speaks and CCCC students listen without asking a lot of questions? That's precisely what makes a CCCC oral-traditional Dakota Thought, Philosophy, and Culture class, explained Peacock, who then elicited from MICA students what they thought made their MICA Native American Studies class an oral class: student-centered discussion in which students and professor ask each other many questions.

Yet another cultural difference was the two classes' different emphases on the textbook, *Native American Studies 2nd Edition* (Braun, Gagnon, & Hans, 2011), co-

authored by three University of North Dakota professors (one a Turtle Mountain Chippewa), who acknowledged Lambert in their introduction. He had taught the book before, and Peacock adopted it for their joint class.

Before each videoconference with CCCC, a MICA-only, student-centered, face-to-face discussion of a chapter in the textbook began where the online MOODLE forum left off in the way already described. It was a nine a.m. class, students were sometimes sleepy, and once, when Peacock found himself slipping into the role of sage on the stage — asking and answering all his own questions — he asked his students, *what's the difference between a sage on the stage and a Native American elder to whom tribal college students mainly listen?* Their answer woke everyone up: a sage on a stage is an authority in academic reading, writing, and lecturing, whereas an Indian elder passes down oral traditions and protocols. Hadn't Lambert said he didn't pay too much attention to the textbook, acknowledging that he had read only select parts of it himself, and considering it basically a foil against which to pose his oral traditional knowledge and cultural understanding?

Lambert took basically the same position toward a book Peacock gave a PowerPoint presentation on, *The Dakota Prisoner of War Letters,* a dual-language translation of fifty letters that Dakota prisoners of war wrote to missionaries who had taught them how to read and write in their own language while in prison for their participation in the Dakota-US War of 1862 (Canku & Simon, 2013). Lambert was skeptical: had the prisoners really learned to write in their own language, a language that had been entirely oral until, in 1832, those same missionaries had invented an orthography in order to translate the Bible into Dakota so as to convert Indians? Lambert suggested that perhaps the letters had actually been written by missionaries on the prisoners' behalf or even without the Indians' knowledge. Even if written or dictated by the prisoners in their own language, had the letters been translated accurately into English?

These were not unlike the questions Lambert asked about the written version of treaties that Dakota had negotiated and smoked the pipe over in an entirely oral process that, he argued, ended up being intentionally or unintentionally misrepresented as soon as the treaties were translated in the form of rough notes, transcribed in standard treaty format, and altered further in Congressional confirmation.

Trying to redress violations of written treaties had led to a legal quagmire in the US Supreme Court, which ruled that Congress had plenary power over Indian affairs even when it passed federal Indian laws that the Court declared unconstitutional (Braun, Gagnon, & Hans, 2011, p. 242). Instead of seeking justice in federal courts, therefore, Lambert, who was active on treaty councils, advocated that the Dakota submit what their ancestors had agreed to orally to international tribunals that were beginning to admit as evidence this kind of oral argument.

Asked for the source of his oral understanding of treaties, Lambert answered that that was an "American question," which he said he would answer as an American: he had acquired his oral understanding of the treaties during all his years working for the tribal government and listening to tribal people, including a few professors.

Different Ways of Learning Together across Distance

Only MICA students participated in asynchronous and synchronous discussions of Lambert's PowerPoint presentation on the 1867 Treaty and 1873 Agreement between the US and the tribe's Sisseton and Wahpeton bands. "Reading the written treaties is a little difficult given the jargon used," wrote sophomore Dallas

Shore,[1] so his professor posted excerpts from two key passages that Lambert had reduced to bullet points in his PowerPoint:

> **1867 Treaty:** [T]he Sissiton and Warpeton [sic] bands of Santee Sioux Indians hereby cede to the United States the right to construct wagon-roads, railroads, mail stations, telegraph lines, and such other public improvements as the interest of the Government may require, over and across the lands claimed by said bands, including their reservation. For and in consideration of the cession above mentioned, Congress will establish and support manual-labor schools to promote the agricultural improvement and civilization of said bands [ellipses deleted].

> **1873 Agreement:** [T]he Sisseton and Wahpeton chiefs and head-men propose to [further] cede, sell, and relinquish to the United States all land and territory, particularly described in article II of [the 1867] treaty, as well as all lands in the Territory of Dakota, excepting tracts and territory reserved as permanent reservations.

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[1] All quotes from CCCC and MICA students are excerpts (sometimes with ellipses deleted) from CCCC's *Dakota Thought, Philosophy, and Culture* or MICA's *Native American Studies* MOODLE course pages. Students' names have been changed to protect their privacy.

The 1867 Treaty Area

Spirit Lake Sioux

North Dakota

Minnesota

Sisseton-Wahpeton Sioux

North Dakota / South Dakota

MAP "A"

THE 1867 TREATY AREA
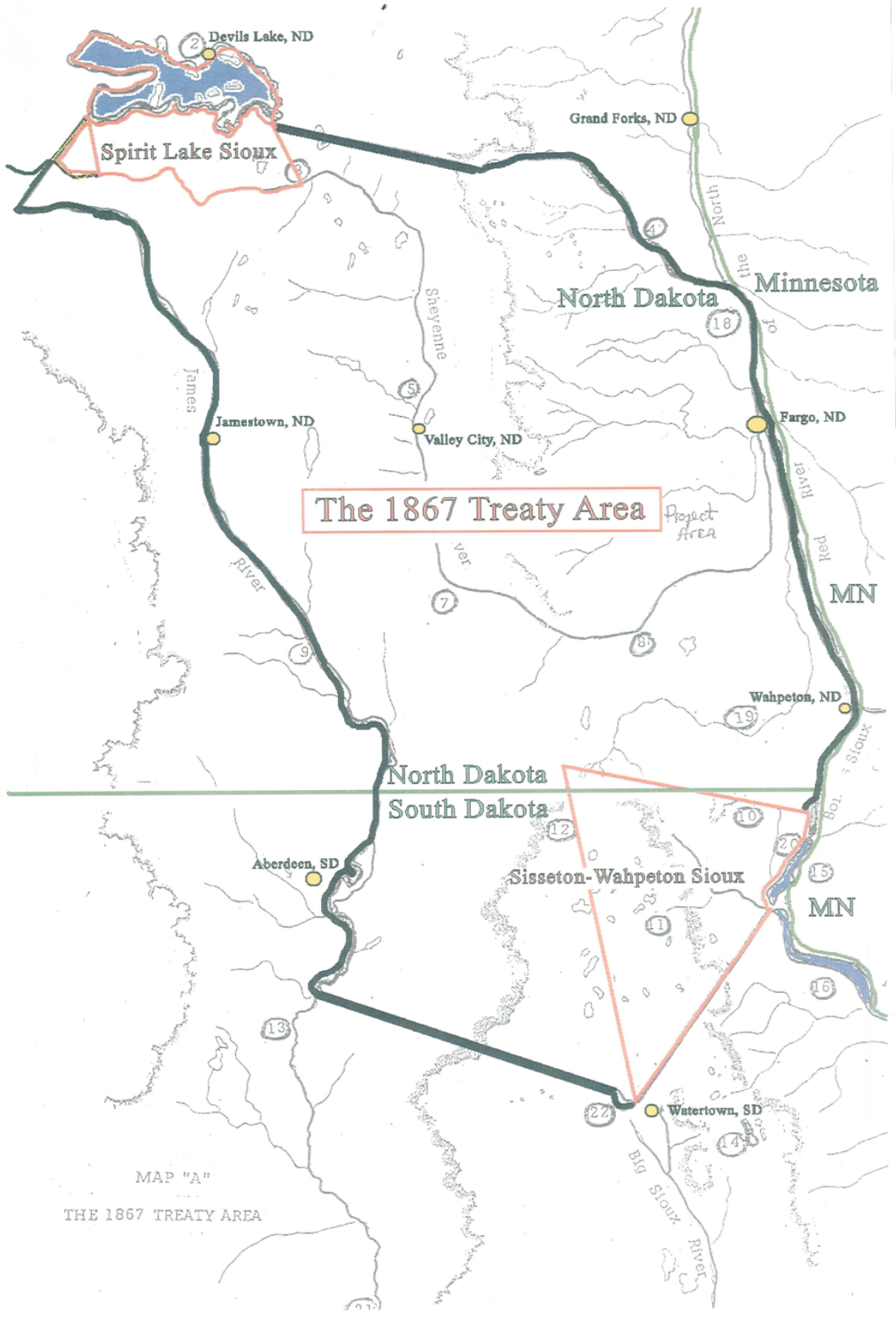
> [I]n consideration of said cession and relinquishment, the United States
> shall advance and pay, annually, for the term of ten years eighty
> thousand (80,000) dollars for the support of manual-labor schools [to
> which] the Sisseton and Wahpeton bands of Dakota or Sioux Indians
> [are] entitled according to the said treaty of February 19, 1867. Said
> consideration, amounting, in the aggregate, to eight hundred thousand
> (800,000) dollars [ellipses deleted].

"What is the difference between these two documents?" Lambert asked MICA students in the videoconference. Dallas Shore paraphrased from memory what he had written in the asynchronous discussion forum: "[In] the 1873 [Agreement] the U.S. abused its position and took advantage of native people, outright going back on previously enacted agreements."

"Very interesting," Lambert replied, adding that the way the 1873 Agreement outright went back on the 1867 treaty was by applying the $800,000 for newly ceded land to pay for (in the words of the 1873 Agreement) "manual-labor schools" to which the Sisseton Wahpeton were already freely "entitled according to the said treaty of February 19, 1867."

"Native Leaders basically signed over most of their rights," concluded MICA sophomore Claire Park.

At this point in the videoconference, Peacock asked CCCC students if they had anything to add. There was another pregnant pause. "Remember we went over the two documents," Lambert gently reminded. None of the CCCC students replied, perhaps rendered speechless by the overwhelming evidence of US perfidy revealed by comparing the two documents.

In addition to more MICA students participating, they tended to come up with questions directed to each other rather than to CCCC students.

In one asynchronous online discussion module, for example, MICA students selected a textbook quote for everyone to respond to that practically restated part of the learning objective already mentioned for non-Native students like themselves:

> In states without contemporary Indian reservations, students are often surprised to hear that Indians still exist. Once [they] know Indians are still alive, they often still equate them with historical images [of] warriors [who] live in tipis and wear feather headdresses and buckskin clothing (Braun, Gagnon, & Hans, 2011, p. 7).

More specifically, the textbook continued, "[b]y the late nineteenth century, the Lakota Sioux became the symbol of Indians in the American Mind. They still are."

Is this true, and if so, why?, MICA sophomore Saul Feldman began the forum by asking.

MICA sophomore Ellen Lamour answered:

> *When I searched 'American Indian' on the internet, what commonly popped up were pictures of tipis, men in feather war bonnets, warriors on horses, and paintings of buffalo hunting, which are all specifically part of historic Lakota culture. So yes, [the] statement [that Lakota symbolize Indians in the American Mind] is very accurate.*

"[T]heir historic military dominance is one reason," Ellen cited for "why the Lakota are held as exemplary of Indian culture by many Euro-Americans . . . ever since the Lakotas' adoption of [European] firearms and horses allowed for fruitful wars against many other Plains tribes."

Claire Park added, "it only makes sense that the Lakota Sioux are the symbol for Native Americans because most of the actors chosen to play Native Americans in films were from the Sioux Nation . . . creating a stereotypical image."

MICA students went on to question the stereotype of Sioux living in the past, but they didn't reject the conclusion that because Sioux lived in the past, the Sioux were inevitably going to be conquered as part of America's Manifest Destiny and remain in the shadows of history. MICA senior Amy Konrad wondered, "do you think there could have been an alternative, more peaceful way for the Americans and the Indians to coexist with one another and equally share the land? Or was war inevitable between the Indian tribes and the Americans over who owned the lands?" Saul Feldman answered, "the opportunity for wealth was too tantalizing for the Americans; it would have been next to impossible for Americans to not end up fighting with many of the Indian Tribes." MICA Sophomore Reuben Nemeth agreed that "the constant expansion of the European settlers and their descendants, combined with the idea of manifest destiny over the untamed wild, meant that there would be more people in the USA than the Native civilizations were used to. This created space issues and resulted in wars." MICA Junior Gretta Rank concluded,

> *It [was] survival of the fittest. If you are the best equipped with guns and training you are more likely to get what you want. I would like to believe that Americans would respect and love nature, be less wasteful, a little bit kinder [and] work together in harmony. But that's not the world we live in, nor how people act. I don't really think there could have been an alternative at the time. Our brains might need to evolve more to handle very complex thinking. This is billion of years I'm talking about.*

"Can't the human brain adapt quicker through cultural adaptation than by natural selection?" their MICA professor interjected in a post. "We don't have billions of years, only a semester to evolve more complex thinking." Dallas Shore answered with a question: "What ways would you propose to create more connectivity between Native people and those off the reservation? How can we as non-natives be a part of spreading the word about Native experiences?"

These exchanges demonstrated that the course was working for MICA students, but, as Lambert emailed Peacock, "we have to work out a different strategy to get the Indian students involved" (Monday, Nov 16, 2015).

In order to get them involved, we first had to understand why they weren't engaging so far.

Investigating Differences in Learning Styles and Experiences

In *Teaching to Transgress: Education as the Practice of Freedom,* African American activist and educator bell hooks observes the tendency of "non-white students [to] talk in class only when they feel connected via experience" (p. 87). Obviously it was not part of CCCC students' experience that Indians no longer exist or exist only in the past. What in their experience could possibly be brought out in a discussion with students at MICA, in Baltimore, fifteen hundred miles from CCCC but only a mile and a half east of the intersection of North and Pennsylvania Avenues, where Freddie Gray's death at the hands of police in April 2015 led to riots which closed the school? Native American peoples, the textbook said, were historically seeking separate rights as sovereign, independent nations, whereas African Americans were historically seeking equal rights as American citizens within the US political system (Braun, Gagnon, & Hans, 2011, p. 331). To turn this comment into a lesson in experiential learning, Peacock suggested both classes watch MICA's 2015 Constitution Day symposium on "Black Lives Matter" online and then to compare and contrast their experiences on the reservation and in inner-city Baltimore.

Still screen-shot, *Black Lives Matter, Structural Racism in 21st Century America*, Constitution Day symposium, MICA (2015).

Tribal student Tony Black Bull broke the silence of CCCC students in the videoconferences by asking if any MICA students had been racially profiled by Baltimore city police during the riots. "Most of us are white," came the first reply, but then one of those white MICA students volunteered that he was gay, as was his brother, who had been hassled by police. MICA students reversed the question and asked whether tribal students had been racially profiled, to which Tony Black Bull replied yes, sometimes when they went into the white town off the reservation. Lambert added that clerks sometimes followed them around in white-owned stores.

On the asynchronous forum, MICA senior Alicia Rodriguez posted a link to a Lakota People's Law Project article entitled "Native Lives Matter," which quoted data from the Centers for Disease Control and Prevention for the period 1999-2011, showing that "the racial group most likely to be killed by law enforcement is Native Americans, followed by African Americans, Latinos, Whites, and Asian Americans"

(Lakota People's Law Project, 2015, p. 2). Alicia posted the question, "why is the Black Lives Matter movement receiving more hype than the Native Lives Matter movement?" Answering this question, Rebecca Larocque became the first CCCC student to participate in the asynchronous forums:

> *I think the Black population has had more time to perfect their skills using the media. Throughout history the media has been used to shed light on situations political as well as racial. Our [Dakota] people are so busy warring with each other or trying to resolve things on our own that we haven't taken a lot of time to shed light on our situation to others. All together [Indians] make a decent number of people in this country but each Tribe or Clan is different and cannot be classified as one. It has been mentioned that we are a Political group not an Ethnic group, which means we fall through many more cracks than others.*

She continued:

> *I've also observed our culture being very quiet and reserved versus the Black population being a lot more verbal about things in their everyday lives. People have been able to relate to Black culture because Blacks have had more time to assimilate. We are trying to preserve our culture, which is one that very few take the time to understand. Throughout the history of this country most of the stories about our people taught in books are about us being conquered, driven out, or removed.*

Could the last sentence indicate why Lambert didn't pay much attention to the textbook?

This videoconference was supposed to last fifteen minutes, but ended up continuing for an hour and a half with both CCCC and MICA students participating.

Educating across Cultures

It was also our last videoconference, so we never found out whether it would become the new normal. For Lambert and Peacock, it also raised but did not answer two complementary pedagogical questions: how much is Dakota students' quiet and

reserve a positive sign of respect when learning from elders? How much is it a negative legacy of boarding schools? In the two South Dakota Boarding schools attended by Standing Rock Lakota Phyllis Young,

> *You had to suppress your feelings because you couldn't have an opinion . . . you did not speak when you were talked to or talked at. Indian children in the boarding schools did not interact, did not respond, did not question. . . . There are three generations of parents that have raised their children that way; we are just now coming out of that. . . . [T]he teachers . . . were threatened if you communicated . . . and you were punished for it (Barrett & Britton, 1997, p. 22, quoted in Braun, Gagnon, & Hans, 2011, p. 227).*

How can educators accentuate the positive traditional causes and help heal the negative boarding-school effects of Indian learners' quiet ways? This question has been studied extensively in early Indian education, where some provisional answers have been proposed that might be applicable in modified form at the tribal college level.

Paralleling early education research done on the Wasco and Paiute confederated tribes of Oregon's Warm Springs Reservation, for example, Haida researcher Fred White (2008) found that Haida first graders in the Massett Haida tribal school tend not to compete academically. Expecting them to compete only alienates them not only from American mainstream culture but from their own Haida traditions, in which appearing to outsmart others is culturally unacceptable, the model learner being first an observer/apprentice and only later a participant. Also paralleling Warm Springs research, White observed that Haida children respond to teachers' questions less but visit with each other and wander in and out of class more than mainstream students. This may be, White suggests, because at tribal gatherings where attention shifts among as many speakers as in a normal class, nobody equivalent to a teacher formally decides who gets to talk and when, and children are free to come and

go and interact with whomever they please while others talk. Non-Native first graders transition easier than Haida children from informal kinship gatherings to classrooms controlled by non-kin authority figures with whom they have already had more experience. Haida children do better with a teacher they are allowed to call "auntie" or "grandma," but even then, rather than raise hands to talk to her, they tend to get out of their seats to go ask her something, often out of hearing of the others. Non-Indian first graders class raise their hands more.

As for how teachers shape student behavior, White cites research on an Odawa teacher who gives students three times longer to answer than a Euro-Canadian teacher does. In turn White finds Haida teachers differ from mainstream ones in how much and what kind of participation they expect and therefore require of Haida students — subtle differences that have received little attention. When "peripheral participation" — neither fruitless nor pressured — is encouraged at the students' discretion, Haida first graders participate more. Typically they are silent or give wrong (because premature) answers when forced to demonstrate skills or knowledge beyond what their community would normally expect of a nonparticipating observer/apprentice; or else they deliberately give incorrect answers or shrug their shoulders so as to compel the teacher to ask someone else for the correct answer. By not forcing these kinds of participation, Haida teachers take the stress off and free Haida students to participate more, when they are ready. Doing this in Haida language classes where participation is crucial allows students to concentrate on the language, rather than anxiously filter it out. By contrast, mainstream teachers actually ratchet up the stress level by quickly stifling student interactions not directly related to instruction, thus maintaining the teacher's own sole authority over who speaks when. Tolerant of much more noise and interruption, Haida teachers let students wander or speak when they want.[2]

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[2] This summary closely follows Peacock's introduction to White's book.

White's research on classroom dynamics helped Peacock make sense of a Sisseton Wahpeton College Dakota language and culture class to which he once guest lectured. He remembered a young woman wandering in late, going right up to the Sisseton Wahpeton college instructor's desk in the middle of class (although not while that elder was speaking), asking the instructor to fill out some forms, leaving, and coming back later (again when the instructor was not talking) to ask if he had completed them – something the instructor didn't seem to mind.

When the instructor introduced Peacock to the class, he told students that Peacock had studied and taught in mainstream American universities and therefore expected them to ask to questions. Many fewer did so during class than came up individually afterwards.

In a documentary film-making class at the Sisseton Wahpeton Tribal College taught by Peacock's nephew, students often skipped class even though they clearly relished group projects when they did come. Nor did absenteeism and tardiness undermine yet another class, a Dakota language class, that Peacock took as an adult student at the Enemy Swim community school at Lake Traverse. When the female teacher herself was not there, students would come anyway and engage in group activities that "auntie" or "grandma," as she was called, had introduced, such as playing Scrabble in Dakota.

She told Peacock, when he joined her multigenerational language class, that he could be another "uncle" to several toddlers who came with young single mothers and expected to sit on the laps of older adults. This reminded Peacock of White's point that Haida teachers themselves were more physical with their students than were non-Indian teachers. So was the male Sisseton Wahpeton College Dakota language instructor, whom Peacock saw a little boy approach and lean into for an affectionate hug.

The bottom line, White concluded, is that the best designed language lessons would be in vain if Haida students didn't participate more, and the main contribution of his findings was to suggest they would participate more if their culture's traditional learning and participation styles were accommodated, at their own pace.

One of Lambert's online lectures stressed how Dakota traditionally promote communal sharing over individualistic striving; authority figures are looked to as guides by apprentice learners who tend to listen, observe, and collaborate rather than single themselves out for individual recognition in accordance with the mainstream ethos of personal autonomy.

To several videoconferences of our team-taught class, tribal college students brought young children, who, though sometimes a little loud, were so obviously tolerated that Peacock took to affectionately addressing them on occasion. Lambert joked that he would lose his job if he didn't let his students bring their young children to class.

He was obviously trying to overcome the problem that some "TCU students . . . prior to their college experience, have found formal educational settings to be a hostile environment" (Braun, Gagnon, & Hans, 2011, p. 231). Being called on in class can feel like being "picked on" (White, J., 2011, p. 12).

Examining Pedagogical Strategies

Instead of calling on CCCC students in class to comment on the difference between the 1867 Treaty and the 1873 Agreement, what might be a better strategy for involving them experientially in these documents?

The year before MICA and CCCC classes were merged, Lambert's students read President Obama's October 31, 2013, proclamation during National Native American Month in which the President challenged "a bright new generation [to] build on this work [of] strengthen[ing] our nation-to-nation relationships." As a class

project, Lambert's students recommended that their tribal council pass a resolution to engage in nation-to-nation negotiations with the US to return all the land that the US had taken from them in violation of the tribe's 1867 Treaty.

CCCC students, in other words, had not just passively learned about sovereignty in class, as future tribal leaders they were beginning to participate in practicing it. From this example, MICA students not only learned more about tribal sovereignty than they did from any of the course readings, they were inspired to wonder what they could contribute in like manner to the tribe and to their own communities in Baltimore and elsewhere.

Such project-based learning is exactly what MICA students concluded would make the hybrid course work better. But what kind of projects could CCCC and MICA students work on together that would turn the distance and difference between them into an advantage instead of a liability?

Future Directions

At the end of that last long videoconference, MICA and CCCC students started a Facebook page so that they could keep in touch online.

Native American Studies and Dakota Studies Public Group, Facebook (7 October 2016).

They did this unprompted by Lambert and Peacock, neither of whom is on Facebook.

They also suggested a face-to-face "cultural exchange" between the two schools in future years of the course, based on students' common understanding of culture as something less to be studied academically than to be performed, practiced and participated in through music, dance, storytelling and visual art. These art forms have never been considered as separate from one another in American Indian cultures as

they have been in Euro-American cultures — one of the reasons that contemporary multimedia MICA art students loved studying with their tribal college peers.

Finally, MICA and CCCC students also jointly suggested that in future years the course pair them in service learning projects. But, again, what kind of projects? For years Lambert had been asking Peacock to conduct various kinds of research regarding the tribe's treaties in the Bureau of Indian Affairs records at the National Archives in Washington, D.C. (Lambert and Peacock, 2014). Lambert and his students in North Dakota could potentially generate questions for MICA students to research at the Archives. Lambert and his students would need to answer MICA students' questions about how and why this research matters, spelling out its context and purpose from the perspective of the tribe. Small groups of members from both classes could jointly produce shared documents online and present their research findings to the whole class. These projects could then be archived as a knowledge base for future students to learn from and build on. Some of this research might be of interest to tribal constituencies, who, if sufficiently impressed, might in turn submit questions of their own for the joint class to research. In a very modest way, the class might, in collaboration, begin to learn to perform for the tribe some of the functions that post-secondary research institutions perform for their communities.

Final Reflections and Analysis

Perhaps we were too optimistic in assuming when we began teaching together that CCCC and MICA students would feel equally comfortable learning together online because they already spend so much of the rest of their lives online. Increasingly, tribal college students will be taking other courses online, in which they may face some of the same challenges and opportunities as in our course. How students of all stripes experience online realms, how cultural influences affect their online discussions, how their past relationships may lead them to misunderstand and

misinterpret one another online — these were all open questions in a new "Cyberpsychology" course taught by MICA professor Mikita Brottman. On hearing of this new course, Peacock emailed Professor Brottman:

> Cultural differences may be part of the problem in the Native American Studies course I am now teaching online with a respected elder. I had assumed that because MICA and CCCC students all have had prior experience communicating on MOODLE, there would be no difference in their participation in our online discussion forums. But it turns out the tribal students hardly post online and participate even less in synchronous whole-class videoconferences. This may be part of the same discomfort with formal education that makes Native American students sometimes reticent in fact-to-face classes.

However much mainstream students who take Native studies courses online with tribal students start to overcome the stereotype that Native Americans no longer exist or exist only in the past, those courses will have to integrate tribal pedagogies if tribal students themselves are to achieve their goals of understanding and balancing their dual status as tribal citizens of sovereign nations predicated on the traditions of an originally oral civilization and as US citizens of a nation of laws promulgated in writing.

To both CCCC and MICA students, online media are interactive; lectures and books, not so much. What Lambert calls oral civilization is still a greater part of the cultural DNA of CCCC students than is written culture, just as visual media are more important to many MICA art students than print media. Online media are mainly visual and oral — images and sounds — as opposed to being strictly literary, which is why Marshall McLuhan in 1967 predicted online media would help revitalize traditional cultures (McLuhan & Fiore, 1967). Not everyone agrees. Among skeptics, Vine Deloria thought online media distracted traditional people from being present in the here and now (Deloria, 1979, p. xi). Both McLuhan and Deloria have a point, but

what matters to us in the classroom is how contemporary digital natives learn. Before joining forces with Lambert, Peacock had already found that he could leverage online learning to get students to read, write, and participate in class better. Combine this kind of online learning with project-based learning of the sort Lambert had already been assigning his students, and CCCC students will reap the benefits of both. They will be participating in projects that are culturally appropriate. They will gain experience participating in classes with non-Native students. When they transfer to complete their four-year degrees at a mainstream college or university, they will be better prepared to participate in mainstream higher education. Institutionally, those tribal colleges that integrate tribal project-based learning into online partnerships with mainstream colleges and universities will be a step closer to converting their Native studies programs from two to four years, if that is their goal.

Will CCCC students become more "colonized" by learning to be as fluent in academic reading, writing, and speaking as in traditional Dakota oral communication? No more than when they "code-switch" from tribal to mainstream protocols with which they are already equally fluent: from pow-wow to hip hop; from face-to-face conversation to text messaging; from teasing friends to speaking respectfully to a police officer. Just as police officers who expect tribal people to obey the law need in return to respect them and their oral civilization, so do educators who expect tribal students to learn how to read, write, and speak academically need in turn to accommodate oral traditional teaching and learning styles. If they do, hybrid courses, despite all the challenges discussed in this article, will hold out the possibility for educators in both TCU's and mainstream colleges and universities to turn the geographic and cultural distance between them to advantage.

In our course we definitely didn't solve all the challenges of our students' cultural differences, but, like the early Indian educators that Fred White observed, rather than trying to force CCCC students to participate as much as MICA students,

we patiently waited for them to participate when they were ready, as a few of them finally were during our last videoconference.

After that particular session Lambert told Peacock that years ago as an education student at the University of North Dakota, he had at first been advised by his non-Indian advisor to switch to another program in which he felt he might have more to say in class. When Lambert explained the more quiet and reserved educational protocol that Indian students like himself were observing, however, his advisor asked him to stay in the program and, when he was ready, to present this protocol to the other students, which he did. Lambert says it took him ten years to apply to tribal schools what he had learned getting a master's degree in education from the University of North Dakota. He has been progressively integrating traditional Dakota and mainstream higher-education pedagogies ever since, moving into online teaching with our course in 2015, one year after becoming the American Indian College Fund's CCCC Faculty of the Year.

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Behavioral Health Survey of TCU Students by Students: Learning About and Through Research
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Abstract

The core mission of all institutions of higher education is to educate the students in the academic community. Understanding the health of the students in the community is a key aspect of the work of these institutions to provide support for student success. In this article, Leilani Ignacio, Bobby Lind, Hiram Small Leggs, Marie Washington, Colleen Berg, Dave Oreiro, and William L. Freeman document a process they engaged in at Northwest Indian College to create and administer a survey of students' behavioral health, analyze the survey data, and report results to the college administration. The project, in addition to yielding data on the health of students in the community, also provided an opportunity for three undergraduate students to participate in the development of research and the analysis of data. Through this process, the researchers find students at Northwest Indian College resilient in pursuing their educational goals and achieving success.

Introduction

Native Americans and Canadians (NAC) — Indigenous people of North America and their institutions, comprised of tribes, people, and Tribal Colleges and Universities (TCUs), including one TCU, Red Crow Community College, in Alberta, Canada — often distrust research about them, due to experiences with past research that has harmed NAC communities and the frequent lack of community participation in research (Freeman, 1998; Freeman, Romero, & Kanade, 2006). In response, Community-Based Participatory Research (CBPR) has become a research method desired in this setting (Macaulay et al., 1999; Mohatt et al., 2004).

At the core of CBPR is the equitable partnership between researcher and the community involved in the research. However, many NAC communities and individuals increasingly prefer a method with even more emphasis on NAC control than CBPR has implied (see, for example, Bull, 2016; Fisher & Ball, 2003; Rasmus, 2014; Trimble, Casillas, Boyd, & King, 2017). Recently, the term "Tribal Engaged and Controlled Research (TECR)" has been proposed as more accurate than "CBPR" to describe the type of research favored by Native Americans and Canadians for research conducted within Native communities (S. M. Rasmus, personal communication, April, 2016).

This article documents an effort at NWIC to understand the behavioral health of students as a way of increasing student achievement, success, and retention. Within this project, a second and equally-important purpose was for NWIC students to take leadership roles in the research on student behavioral health, and for students and faculty, with the guidance and support of mentors, to strengthen their research skills. CBPR+ describes the research methodology for this project — i.e., CBPR with the NAC fully engaged in and controlling the research — with the NAC "community" consisting of both the students of Northwest Indian College (NWIC) and NWIC as an institution.

Context

Probably the most influential research about retention and success of students at college in the United States was by Tinto (1993). Tinto's deficit model showed that to achieve success, students had to become part of the academic community by discarding their family and traditional community. The applicability of Tinto's model to NAC students is disputed, however. For instance, studies by Akweks, Bill, Seppanen and Smith (2009), and Brayboy, Fann, Castagno, and Solyom (2012), found that factors associated with NAC students' success in college actually included strong

cultural identity, support by family, and the desire to give back to one's home community (i.e., using their education to benefit their people), in addition to the presence of a critical mass of NAC students and teachers at the institution. A survey of 156 current NAC college students by Thompson, Johnson-Jennings, and Nitzarim (2013) found that factors associated with the intent to persist at college included giving back and the positive view of one's cultural group among Native students. In a qualitative study of three generations of successful NAC college graduates, resilience and giving back were found to be important to the students' success (Guillory, 2008). Studies of NAC students specifically in TCUs are rare, but confirm the factors associated with retention and success noted above. In addition, participating in activities in the TCU (e.g., clubs, student organizations, annual American Indian Higher Education Consortium competitions among TCUs) and strong advising were key factors for NAC students' success in TCUs (Guillory, 2008; HeavyRunner, 2009).

Several TCUs nationwide periodically survey their students using professionally-developed standardized generic student surveys with which the college can compare its results to that of other colleges. We are unaware of any published results of a survey of TCU students that TCU students themselves fully engaged in and led the development, implementation, analysis, and dissemination of results, with the mentoring of faculty and senior researchers. This article reports the CBPR+ methods and qualitative results of such a survey of NWIC students, a project which had both educational and research purposes.

The Behavioral Health Research Network Project

In 2014, the American Indian Higher Education Consortium (AIHEC) funded competitive Behavioral Health Research Network (BHRN) grants to five TCUs, including NWIC, to conduct research in behavioral health; each project had to include student learning as a central component. The NWIC project combined experiential

learning with hoped-for significant benefit to NWIC as well. To accomplish this goal, three student researchers would learn how to conduct meaningful and valuable behavioral health research by leading and doing the research, with the guidance of mentors. The two overall goals for NWIC's BHRN project were:

1. Education: Three NWIC students would experience conducting a behavioral health CBPR+ survey, learning about the process and presentation of research. This experiential aspect involved the students themselves developing, implementing, analyzing, and reporting the results of a survey about the strengths and needs of NWIC students.

2. Research: The students would use the research skills they learned to analyze the data and propose to the NWIC administration feasible steps the College might take to help increase student success. The hoped-for beneficial and valuable research outcome was that the steps would be concrete feasible steps based on results of the student-led behavioral health survey.

Given these two purposes, education and research, this inquiry is guided by two research questions:

In what ways can NWIC students learn about conducting research by developing and conducting a behavioral health survey, and analyzing and reporting the results?

What can NWIC learn about student behavioral health from a student-led survey project that can help to increase student achievement, success, and retention?

NWIC CBPR+ Behavioral Health Survey Research Methodology

The survey instrument itself comprised items that were both descriptive and perceptional. Items asked NWIC students to describe the strengths, resiliencies, needs, obstacles, and facilitators/promoters that they experienced as they worked to achieve success at the college. This section describes the methods used to launch the project, develop the survey, and implement the research.

Formation of the Research Team

With the assistance of the NWIC Dean of Academics and Distance Learning, the project recruited two faculty in the social sciences to be mentored in increasing their research skills who would then themselves help mentor the students. Hereafter, "mentors" refers to the Principal Investigator, other personnel in the NWIC Center for Health, the two faculty members, and the consultant to the project, a NAC clinical psychologist and researcher from a nearby university. One mentor recruited three students interested in behavioral health to participate as student researchers and members of the research team for the two-year grant. The research team is the "we" in this article and includes the three students and all mentors.

As mentors and students, we discussed together the importance and nature of human research protection for both NAC individuals and communities, including NWIC and other TCUs in general, and in this CBPR+ project specifically. NWIC students were the primary NAC community in this CBPR+ project. Prior to launching the research, we took and passed the National Institute of Health (NIH) Human Research Protections certification course individually.

The student researchers helped recruit faculty, administration, and community members for the project's College Action Board (CAB). The project's CAB played a role throughout the process, representing NWIC students and NWIC as an institution. It was charged by the CBPR+ research project to help minimize harms and maximize benefits to the community. After the survey was administered and data collected, the CAB participated in reviewing and modifying the analysis and then disseminating results by presentations, posters, and articles. Following CBPR+ principles, we presented the reports first to NWIC student government and body, and then to NWIC faculty and administration, for the purpose of receiving their review

and suggestions as well as to give them the results first, before dissemination to the public.

Initial Research and Survey Development

The students first did a comprehensive literature review about factors contributing to the success of NAC students and other students in college. No report was found of research of NAC students at a TCU employing methods similar to the research we were planning.

Based on the literature review, their own experience, and their discussions with other students, the student researchers developed the first draft of questions that they wanted to include on the survey, including several questions about personal behavior. We as a team then together modified the draft survey to:

A) Re-draft some questions to focus more on strengths and resilience;
B) Include more questions that were important for NWIC students (e.g., financial aid, thinking about historical trauma) or were in the application for funding for the project (e.g., disability); and
C) Shorten the survey.

We reviewed a behavioral health survey that our consultant/mentor had used in two different NAC Communities: the NAC population in a large city, and a rural Pueblo in the Southwest (King, 1999). We adapted three sections from this questionnaire and added them to the survey; these new sections concerned cultural identity, symptoms of possible mental illness, and personal traumatic experiences that sometimes trigger post-traumatic stress disorder (PTSD).

Our discussions then generated more survey questions, as we refined and revised the wording on many of the items. We removed any vague wording and jargon that could have impeded understanding. Our student researchers were instrumental in this process as we were able to reformulate many of these questions

from their perspective, and ultimately from the perspective of our respondents: students. We pilot-tested the survey twice among students, each time with three different students not involved in the project who were totally unfamiliar with the survey. The first pilot test was conducted with the survey on paper; the second pilot test was administered on a computer monitor using the SurveyMonkey® software, which was the software also used to administer the final, actual survey. We made further revisions after each pilot based on its results.

The CAB reviewed the survey and proposed several changes, including the addition of a few questions of special relevance to the faculty. We then presented the survey to NWIC's Leadership Committee, which offered two more changes that were accepted.

Format of the Survey

The survey consisted of 143 questions grouped in 17 topic areas. Most of the questions were structured as multiple-choice, Likert scale items. The first of the 17 topic areas contained four questions that screened for eligibility to take the survey. To be included in the dataset, respondents had to be enrolled in NWIC, be 18+ years old, have read the consent form, and agreed to take the survey. The last of the 17 topic areas contained the two demographic questions: gender (M/F), and years attended NWIC (0-1, 2, and 3+). The next to last topic area had a single question that asked if the student was willing to meet with other students to provide peer support. The remaining 14 topic areas covered a range of issues, including positive feelings and support systems, financial issues, problem solving, and academics/career.

Thirteen of these topic areas contained a final question, "Other," in which students could type in free form what they wanted to express about the topic, their feelings, etc. The answers to the "Other" questions were analyzed as qualitative research data; these data and analyses are the focus of this article.

Protections of Individuals and Communities in the Research

The entire team discussed confidentiality, including extensive team discussions about the demographic questions to be asked and whether they could be linked to individuals. The survey asked for a few responses that were quite sensitive and could embarrass, stigmatize, or harm respondents if answers were linked to identifiable individuals. Mentors explained the imperative to prevent "statistical identification," which may occur by using combinations of demographic factors (e.g., hypothetically, asking for gender and age in years would reveal the identity of the only male older than 70 years). The NWIC Institutional Review Board (IRB) requires that no cell in the response matrix of all demographic questions have less than 10 individuals in surveys asking for highly sensitive information; this requirement is based on the standard set by the Centers for Disease Control and Prevention (CDC) for researching databases (Department of Health and Human Services, 2013). To comply with that standard, the survey asked only two demographic questions: gender (M/F), and number of years attending NWIC (0-1, 2, or 3 +or more).

One challenge to our desire to provide complete confidentiality was that we wanted to provide respondents with a gift card to compensate for their time to take the 143-question survey, a bit more than one hour on average. We devised a system for the gift card to be distributed by the Dean of Student Life, while electronically preventing the Dean from accessing respondents' answers and also preventing the research team from accessing the identifying information used to distribute the gift cards. We were able to prevent those two actions with the assistance of both NWIC's Information Services (IS) experts and the Help Desk of SurveyMonkey® Platinum level.

Similarly, the team developed a plan for providing immediate counseling during or soon after taking the survey when requested by any respondent for whom survey

questions might trigger an emotional reaction. The same procedure used to distribute gift cards was used to notify a counselor that an identified student asked for help while preventing researchers from knowing any individual's identity.

The IRB taught the students how to apply for an IRB review and attend the IRB meeting. The students helped draft the online Informed Consent process and document. The IRB reviewed the research team plan, the draft of the online consent process and document, and the recruitment poster, requiring a few minor changes and approving the final plan.

As noted previously, the answers to the "Other" questions were analyzed as qualitative data. A quick review by two mentors of some answers to the "Other" questions found that some students' responses contained identifying information. We were quite concerned that such answers might link their identity with answers to questions asking about sensitive issues. The team discussed this issue ourselves and with the IRB. As a result of those discussions, we deleted all answers to the "Other" questions from the basic database used by the team, and assigned one mentor/faculty, the first author of this article, to conduct the qualitative analysis. The qualitative database was then stored separately from the main database, with no links to the quantitative database and with other special, additional protections.

Implementing the Survey

The student researchers were instrumental in recruiting NWIC students to take the survey. The student researchers developed the recruitment poster, posted the recruitment poster widely on campus, and personally recruited classmates and fellow students in class.

We launched the approved and finalized survey on March 19, 2015. NWIC students were solicited by posters in campus buildings, by repeated direct e-mails, and by way of conversations with student researchers. Students who answered at least the

screening questions of the survey received a $20 gift card for a local food and supply store. The survey ended May 1, 2015.

Analysis and Results

Demographics

One hundred ninety surveys were started and thus entered in the database. Of those, 19 did not pass at least one of the four screening questions, and thus could not continue. Of the remainder, 27 did not answer any question in the basic survey, and thus were discarded as having no demographic or any other data. The remaining number — i.e., analyzable surveys — was 144. Of those analyzable surveys, 63% reported their gender as female. For duration of attending NWIC, 34% were regular college students for up to three full quarters at NWIC or were students in the GED program; 27% from four to six quarters at NWIC; and 39% for seven or more quarters.

Methods of Statistical Analysis

We found that the statistical capacity of the "Platinum" SurveyMonkey® – the most advanced version — was quite limited. The student researcher most highly skilled in the program converted the SurveyMonkey® database to an Excel Spreadsheet. As a student-led research project, we chose Excel as the program to conduct the analysis because many students know it. NWIC does not currently teach more advanced statistical programs such as SAS or SPSS.

Methods of Qualitative Data Analysis

This article analyzes only the qualitative part of the research; that is, only the answers to the question asked as the last question in 13 topic areas. We chose to do

this in order to provide a context for our students to then do the quantitative analysis of our research. In analyzing those free-form textual answers, the team followed a methodical, iterative process of cleaning the data, coding the data, finding themes, and constructing the analysis.

First, the one faculty/mentor who had the qualitative database reviewed each answer, replacing any wording that contained identifying information with non-identifying wording, often just more generic. For instance, using a hypothetical example, the mentor replaced "My 26th birthday was on the last day of finals for Spring Quarters, we girls…" with "My birthday was during finals week; me and my friends…" The mentor also split long quotations with more than one unrelated subject into separate smaller quotations by subject.

Next, the team began our analysis of these qualitative data. Each of us individually coded the data by identifying keywords/concepts that were then grouped into themes. Finally, the team came together to compare their individual coding, discussed any discrepancies, and established themes that emerged from the coding process.

Qualitative analysis of students' free prose responses revealed several pressing concerns of students. Major themes regarding students' pursuit of achievement and success are detailed and analyzed in the following sections, including challenges, obstacles, and strategies.

Financial Hardships

With stagnant student/family incomes and the rising cost of tuition and other expenses, financial resources were insufficient for many students. Such financial hardships placed an additional burden on students, especially students with families to support. These students often struggled with balancing their parental and educational responsibilities.

> *Child care at affordable rates would benefit so many of our students. Education is the most important tool in success. A lot of parents fall back due to child care issues. That would be nice to have a system available to help assist with child care cost. The student rate for child care isn't much different than the community rates.*

> *Have child care hours and rates meet realistic management for families and especially single parents.*

> *. . .we come to school to better ourselves to better the generations behind us. If possible it should be one less worry of having to worry about child care and money.*

Because of this unmet financial need, students believed it is important for the college to provide more opportunities for them to access a variety of financial resources and to gain employment.

> *More work around campus would be a huge asset to the students who are in need.*

> *At orientation I wish that someone from NWIC would of let me know about all the financial programs and assistance that was available to me. Instead of learning this on my own. Would of been very helpful. Like BFET (Basic Food & Employment Training) and GA (General Assistance) state needs.*

Lack of sufficient financial resources is a barrier to education. TCUs were initially created to give Native American students an opportunity to overcome educational, social and economic barriers and to help rebuild Native Nations after decades of cultural and economic deterioration (Stein, 1992), yet financial hardships have persisted.

Cultural Identity

Another barrier addressed in the qualitative data was perceived unfair treatment of some students based on their cultural identity. Cultural identity of Native American students sometimes seemed complex and often multifaceted. Results indicated that on occasion NWIC may have overlooked the diversity of its students

and of their cultural identities. Some responses addressed lack of cultural competence of some staff and faculty.

> *. . .Very few faculty and staff members have understanding of the diversity of tribes and the different difficulties facing all students from across the United States.*

> *I have lots of cultural background and I don't like being questioned about it every day by all my instructors. Students are generally friendly but i do feel more education on people with multiple identities would help our campus.*

Substance Abuse

Some students discussed needs related to substance abuse, and suggested the kind of assistance they needed.

> *I am a recovering addict and I would like to see something like meetings or something like a group for addicts in recovery and school.*

Resiliency

Importantly, however, results *also* showed that even with unmet needs, students' capacity to succeed was not diminished. Utilizing their own strengths, students were often able to work around these unmet needs in order to persist in achieving their educational goals.

> *Well I feel that with positive support that was available to me at the time that I finally reached out and asked for help was very strong. Once I told my story, wow! people couldn't believe how much trauma I went through as a child that was affected by the historical trauma our Indian people faced, well I didn't realize until I started college that my addictions and how I was treated when I was a child stemmed back to what my grandparents, great grandparents, and great great grandparents went through and working all my feelings, emotions with good guidance is what got me through and determination in wanting to give back to my community now that I am in recovery of four years. I can say it was tough and still is sometimes but I'm able to handle stress well today.*

The resilience of students was especially evident in how students overcame the consequences of having suffered personal traumatic experiences. Severe traumatic experiences (e.g., severe physical abuse) are known to often cause Post-Traumatic Stress Disorder (PTSD).

In analyzing students' coping strategies, we found that those who handled those experiences well used multiple strategies. NWIC students not only relied heavily on their own inner strengths but also the support from others. External supports included family, friends, professional counseling, community and faith/spirituality.

> *I moved on by not letting the situation control my life. . .*

Not only did the responses show how these challenging experiences were dealt with, several responses showed how overcoming these experiences impacted students' current outlook of those experiences. These responses displayed an optimistic outlook.

> *Things happen and we must move on with life and make it better by not looking back and only thinking about the future. Life gets better and we make a difference.*

NWIC students also shared how those experiences contributed to their motivation to achieve certain goals, such as to give back to the community.

> *I am a suicide survivor, and now work in a prevention group to help others who are struggling.*

> *It gave me the will to take training to help others and I did successfully.*

Discussion

These quotations indicate that many students had remarkable resilience and strengths in overcoming internal and external challenges and obstacles. While it is

important to acknowledge the strengths of our students, we also must be aware of students who may not have thrived through such prior traumatic experiences in their lives or current obstacles such as unavailable child care. While tribal colleges and universities do not have control over the past or future adversities of their students, they do have the capacity to help students deal with such adverse experiences.

Providing student peer support and professional counseling as a service on our campuses is a start, but we also need to meet the students where they are at in the healing process. Many students may not be forthcoming in sharing their experiences with a "professional." Both for students comfortable with professional counseling and students not comfortable, the request of students for opportunities to receive *and to give* peer student support was highly important. Moreover, financial issues and needs were major obstacles that most "professional counseling" may not address or ameliorate. Many schools require a course in building study/academic skills. Perhaps those skills may need to be supplemented by helping students, faculty, and administration address and improve coping skills and sense of self (cultural identity, self-efficacy, self-esteem, etc.) of NWIC students.

Strengths and Limitations of the Qualitative Analysis

The qualitative component of this survey of *NWIC* students had two primary limitations. One was that the survey of 144 students was primarily quantitative; the qualitative component consisted of free-form comments voluntarily added in response to the "Other" questions. Another limitation of the qualitative component was the relatively low number of those comments compared to the multiple-choice survey responses.

In spite of those weaknesses, these qualitative responses of students give us a glimpse into the stories that students shared about their own strengths and needs, personal challenges and resilience in overcoming those challenges, and, above all, their

ongoing commitment to obtain an education and give back to their community. That glimpse suggests that further research is necessary to capture a more complete picture of the strengths, resilience, challenges, obstacles, and needs of students in pursuing achievement and success. The stories of NWIC students may be drawn out, addressed, and understood better in an interview format, revealing a more complete picture. That more complete picture of students, plus the knowledge and resources of NWIC itself, may be able to remove or ameliorate some challenges, obstacles and needs, and increase and expand the strengths and resilience of NWIC students to succeed.

Conclusion

In addition to the data and results generated by the responses to the survey questions, the educational component of this project, in which the students learned to conduct research, had important outcomes for the students and for the institiution. The students were engaged throughout the two and a half years of working on the NWIC BHRN project.

All three students actively participated in and contributed to all phases of the research. Each student also had a special interest in particular aspects and topics of the research. One student focused on the literature search and then on the topic of historical trauma; another student focused on the construction and development of the SurveyMonkey® survey, and then on the topic of financial obstacles to student success; the third student focused on the Logic Model for the project, and then on topics related to personal harms, legal and behavioral issues for students in recovery, and peer support for people facing those experiences.

The educational experiences of the three students related to this project started with the first AIHEC Behavioral Health Research Institute, held for one week in June 2014. Their experiences continued through presentations to NWIC's Leadership

Committee and Board of Trustees, a poster presentation at the Society for Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS) conference in October 2016, and now, without stipend, through helping write this paper as co-authors. Subsequently, the three students will be writing together as "First/Primary Author" the next article about the quantitative results of the survey.

Each of the three student researchers provided personal observations and reflections on this project and the work they did.

> **Student One:** *Conducting and analyzing research as an undergraduate was a valuable and unique experience. The skills and knowledge that resulted from this experience still resonate strongly in my studies and in most other areas of my life as I approach graduation. We three student researchers were involved in every step and aspect. We were given the opportunity to provide a platform for our fellow students to voice their concerns, share their challenges, and offer possible solutions. The reciprocal relationship of community and spirit manifested itself with this study.*

> **Student Two:** *When I first joined the research team, I was intimidated because I didn't think that I had anything to contribute. But it turned out that I did and I also grew from it personally. The knowledge I gained from this research project complemented my coursework and vice-versa. The intensity of conducting research helped me to further my personal college goals. Learning about topics such as severe personal traumas experienced in life, what students experience while attending school, recovery from substance use by the student or family members, and staying in recovery, was empowering. This research shined a light on student needs and strengths. One of my inspirations was that if there is something that we can do to help students succeed, this research helped with that.*

> **Student Three:** *I have seen students that did not complete their education at NWIC. These students had reasons why they couldn't continue, because of childcare, financial needs, and dealing with historical trauma. Reviewing the research literature with stories of why students didn't complete their college careers, was impactful. The literature review was so valuable that I spent a lot of overtime doing it. I wasn't sure I was going to be able to complete this project. But my elders helped instill in me the need to succeed, to follow their example of their work towards helping Natives be successful, and to improve the systems that oppress them.*

This project had proposed to offer an experiential, hands-on, practical course on the fundamentals of CBPR+ research that would engage students in learning a rewarding academic skill. These personal observations by the three student researchers indicated to the mentor team that their experiences were authentically valuable, and, moreover, that this project had succeeded for both the student researchers and for the institution, and was validating not only for the students but also for the mentor team.

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The POSOH Project:
Collaboratively Supporting a Community-Driven Perspective on Sustainability and Commitment to the Menominee Forest's Stewardship

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Abstract

In northeastern Wisconsin, the Menominee Nation successfully stewards a wide stretch of ancestral forest lands, creating both sustainability of the land and an opportunity for education. In this article, Christopher Caldwell, Cherie Thunder, Hedi Baxter Lauffer, Kate Flick, Linda Orie, Reynaldo Morales, Justin Gauthier, and Jeff Grignon document the development, implementation, and impact of the POSOH (Place-based Opportunities for Sustainable Outcomes and High Hopes) Project, an educational collaboration with both place-based and far-reaching goals for the complex intersections among place, culture, stewardship, and education. The POSOH Project, developed in partnership with the University of Wisconsin-Madison and the Menominee Community, is built on the SDI theoretical model of sustainability and is designed to cultivate community-wide and cross-institutional collaborations. The goal of the POSOH Project is to develop approaches to formal and informal science education that value and infuse Indigenous contributions to scientific knowledge and culturally diverse ways of knowing into science teaching and learning. This article highlights the creation of the project and the results of the collaborative community efforts.

Menominee Forest Management:
Sustainable Practices with Measureable Success

The Menominee Forest today encompasses over 230,000 acres of forestland that has been managed sustainably since time immemorial, supporting cultural

connectivity, overall biodiversity and — in relatively recent times — a sustained timber harvest. The Menominee Forest and Community continue to survive and thrive in northeastern Wisconsin on a land base that is less than three percent of the Menominee Nation's original ancestral lands estimated at 10 million acres. This place is a land base on which the Menominee have survived and maintained sovereign jurisdiction over, despite the constant siege of cultural, political, social and economic pressures wrought by European expansion and the American treaty era, in addition to more recent U.S. legislation aimed at assimilation of tribes, which included the Dawes Act and the Termination policy, among many others (Beck, 2002; Peroff, 2006). Throughout this siege, as the Menominee People were ultimately restricted to their present-day land base, tribal leaders have grappled with securing and maintaining rights to manage their own forest for their own identified purposes, which now include sustained yield management. To that end, the Menominee thrive through Menominee Tribal Enterprises (MTE), the tribal entity that manages the forest on behalf of the people. Based on MTE forest inventory reports, after harvesting 2.25 billion board feet since the 1850s, there is more standing saw timber volume now than in the 1800s (1.7 billion board feet now as compared to 1.2 billion in 1854) (Pecore, 1992). However, developing and maintaining sustainable forest management practices for the Menominee Forest is not without challenges.

Forest management on the Menominee Reservation draws visitors from all over the world. The Menominee Forest (contiguous with the reservation boundary) can be identified from outer space — evidence that this unique place contrasts sharply with surrounding non-Native farmlands as well as with the U.S. Forest Service lands to the north, historically once part of the same chunk of sprawling forest. Satellite pictures of North America reveal this distinct patch of deep green, outlined in the shape of the reservation boundaries.

For the Menominee Nation, its sustainable forestry story and place-specific relationships are interconnected with their ancestral heritage that includes commitments to the land and its beings. Unlike the tens of thousands of Native Americans that were forced to relocate during the Indian Removal period of the early 1800s, the Menominee People were able to remain on a portion of their ancestral lands, with no small effort by tribal leaders. In this rare case, citizens of the Menominee Nation were able to remain where their profound understanding of sustainability — specific to place — had the most relevance, and their deep connections to the land remained more intact than was the case for those tribes relocated often to entirely foreign ecosystems. Though their cultural practices were fragmented by European colonization and the cultural genocide that followed, the Menominee People have endured, along with many aspects of their culture and the forest within the reservation boundaries.

Although they remain on their ancestral lands, Menominee families and youth increasingly struggle to recognize the importance of their relationship with their forest in the face of mainstream priorities and often-pressing economic challenges. Today, MTE oversees forest management and sawmill operations, guided by a board of directors comprised and elected by citizens of the Menominee Nation (Dockry, Hall, Van Lopik, & Caldwell, 2016). Further, MTE co-developed with the College of Menominee Nation a relatively new entity, the Sustainable Development Institute (SDI), on the college's campus "to continuously expand knowledge, understanding, and resources related to Menominee Nation sustainable development for the purpose of ensuring ongoing protection, control, and productivity of the Menominee culture, environment, economy, technology, and community." Efforts coordinated by SDI focus on proactively supporting sustainable development and forest management on the Menominee Reservation, drawing strength from Menominee culture, values, and wisdom, a clear example of indigenous-centered, justice-forward frameworks that see

relationships to place and the requisite responsibility to future generations as paramount (Whyte, 2013).

The College of Menominee Nation's Sustainable Development Institute: Bridging Indigenous Sustainable Development Practices, Research, and Education

Unlike the typical mainstream academic emphasis that is placed on memorizing book facts, Menominee view the land (their place) and community (all beings in the place, not just humans) as being the first and greatest teacher of the People (a worldview also common in other North American tribes). Although those citizens of the Menominee Nation who guided forest management sustained this perspective in their forest management practices, public and tribal schools that served Menominee youth were held accountable to standards that valued mainstream perspectives of education. Because of this divide, area schools and the priorities emphasized by their curricula were not supporting — and in many cases worked counter to — appreciation for and commitment to the forest stewardship that was historically integral to the Menominee community and culture.

Responding to concerns about how education could better sustain and strengthen Menominee place-based priorities, the Sustainable Development Institute (SDI) was created in 1993. The Institute was founded as a bridge between the academic values of the Menominee that guide the College of Menominee Nation (CMN) and the tribal forest management practices that are grounded in the culture and relationships with the forest itself. One challenge to effectively creating that bridge has been finding ways to navigate and function within institutionalized norms such as national forest management practices or public academic operations without being assimilated into mainstream forestry and educational priorities. Menominee leadership involved in developing SDI and articulating its mission identified the need

for a clearly articulated theoretical model for sustainability that originated from the Menominee People. As the Menominee perspective of learning from the land emerged from and served the Menominee People well, so did the SDI model emerge out of the formation of SDI and the development of its position within CMN.

The SDI Model of Sustainability

The SDI theoretical model of sustainability is comprised of six highly interrelated dimensions: (1) land and sovereignty; (2) natural environment (which includes human beings); (3) institutions; (4) technology; (5) economics; and (6) human perception, activity, and behavior (Dockry, Hall, Van Lopik, & Caldwell, 2016). This model provides a contemporary, indigenous guide for identifying and navigating tensions that arise and affect the Menominee People, their community, and their forest. In addition to being used to identify vital issues, the SDI model can be used as an evaluation tool and a guide for making decisions about commitments to actions and who may be best positioned to accept responsibility for those actions in service of the Menominee People (Dockry, Hall, Van Lopik, & Caldwell, 2016).

Intentionally using the SDI model to identify issues and vet decisions is critical to supporting Menominee sovereignty. If CMN and SDI do not frame their missions, priorities, and commitments from a perspective that originates from the Menominee People, then the vicious cycle of being overrun by the mainstream assimilation perspective is perpetuated. This mainstream perspective excludes and de-values indigenous knowledge systems and culture through actions and language that are both blatantly disrespectful and obscure, contributing to the historical strife that Indigenous People throughout North America cope with on a daily basis. This deficit model view — brought to bear on Indigenous People since European contact — has taken its toll on all aspects of their wellbeing (Bang et al., 2014; Grande, 2004; Smith, 1999; Watts, 2013). Extensive harm was inflicted through public and boarding schools

that were designed to obliterate and replace indigenous culture, including their sustainable development wisdom and practices (Turner et al., 2000). Therefore, it was part of a critically important shift towards greater sovereignty for the Menominee People to not only create CMN and SDI as Menominee institutions, but also to equip SDI with a Menominee-centric model of sustainability as its guide.

The SDI model serves as a valuable guide for choosing the most appropriate collaborations and projects that will benefit the place and people of the Menominee Nation. SDI and CMN field a steady flow of requests for collaboration on a variety of proposals from non-tribal organizations, colleges and universities. The invitations are typically motivated by one or both of two key attractants: 1) the Menominee Forest has a well-known reputation as an exemplar for sustainable forest management, and 2) collaborating with a tribal college can increase the ranking assigned to project proposals during the review process — increasing the likelihood for receiving funding — even if the "collaboration" was made with little regard or respect for what the Menominee People have to contribute. SDI can serve as a filter for deciding with whom outside of the Menominee Community to partner and collaborate so that those partnerships best serve the people, community, and forest. In essence, SDI facilitates processes and relationships so that IF the seed of an idea fits with place, IF the project has partners interested in reciprocal learning and growth, and IF the project benefits the tribe in a long-term way, the project can grow. SDI also facilitates having voice in project development from the inception rather than a more typical large university/researcher relationship which begins with a well-defined agenda before contacting the tribes.

The POSOH Project that is central to this article is one example of how SDI was able to play an effective role in connecting Menominee academics, community, and forestry with a project that aligned with self-determined vision and goals. Employing the SDI model to analyze tensions related to forest management in the

Menominee Community had begun, so faculty and staff at CMN were watching out for opportunities that could support place-based solutions. In 2010, the USDA put out a unique call for education proposals through the National Institute for Food and Agriculture. The purpose of this call for education proposals was to advance our nation's standing with regard to bioenergy, which describes renewable energy derived from organic materials such as agricultural crop and forest residues, and algae. SDI and CMN faculty and staff were well-positioned to collaborate on a proposal with the University of Wisconsin-Madison. The solution identified via the SDI model led to a foundational commitment to education as a valuable strategy for using school systems (institutions) to teach students more about ecological interactions (natural environment) and forest management (technology) to foster the types of engagement with forest management (human perception, activity and behavior) that would sustainably support Menominee sovereignty (Dockry, Hall, Van Lopik, & Caldwell, 2016). Thus, when the opportunity arose to collaborate with University of Wisconsin scientists and educators to create a place-based and culturally focused science education project, SDI was well prepared to proactively contribute to its formation and development of its mission.

The POSOH Project:
A Place-Based and Community-Driven Education Collaboration in Support of Sustainable Development

The POSOH Project is an example of a collaborative project to which SDI committed as a way of addressing aspects of the tension that threatens sustainable forest management and Menominee sovereignty. The solution, in this case, was to collaboratively develop public, tribal and informal science education opportunities for area youth that originated from and validated the value of the forest and its people by placing them at the center of the supported learning activities. The project, dubbed

POSOH (an acronym for "Place-based Opportunities for Sustainable Outcomes and High Hopes" as well as the word for "Hello" in the Menominee language) was developed to address the following mission:

> *Locally, develop community-wide and cross-institutional collaborations who co-construct approaches to formal and informal science education, valuing and infusing Indigenous contributions to scientific knowledge and culturally diverse ways of knowing into science teaching and learning. Thus, POSOH's local goal is to transform the vision and expectations for excellence in both science education and who can contribute to and benefit from science- and bioenergy-related studies and careers.*

> *More broadly, our mission is to build and steward a transformational model for creating place-based collaborations dedicated to reaching all learners — especially those who are underrepresented in science and science education — by valuing and infusing diverse cultural ways of knowing and their contributions to scientific knowledge into science teaching and learning. Thus, POSOH's far-reaching goal is to document and share the Project's local experiences so that other communities can learn from and build on our experiences and innovations.*

The POSOH Project is a multi-faceted and holistic approach to reforming science teaching and learning opportunities in the region surrounding and including the Menominee Nation. Three focus areas are supported by this five-year project that has been extended to a sixth and final year:

1. collaborative, place-based, culturally relevant science curriculum design and development,

2. collaborative teacher professional development to introduce area teachers to the POSOH science curricula and build cross-cultural connections among teachers and community members, and

3. high school and undergraduate youth-centered action research and leadership development.

The Menominee Forest and community are the common thread throughout each of these three facets of the POSOH Project. In the description that follows, we discuss how two of these focus areas — curriculum design/development and youth

leadership — directly connect to the Menominee People's forest, sustainable forest management practices, and the broader "place" within which the Menominee Nation is interconnected.

Collaborative, Place-Based, Culturally Relevant Science Curriculum Design and Development

A key component of the POSOH Project's approach (aligned with the SDI model's dimensions) has been to develop place-based and culturally relevant science curricula that are inclusive and respectful of indigenous ways of learning and understanding. We defined place-based and culturally relevant curriculum in a 2012 POSOH Project presentation to the American Educational Research Association (Grignon, Lauffer, & Sheth, 2012) as follows:

Place-Based Curriculum

"Place" refers to the shared geographical, ecological, and socio-cultural context of a particular region. Learning materials that are place-based are designed explicitly in the context of the place where they are used and the people with whom they are used. Unit materials are designed in collaboration with people in the place to address local priorities and locally relevant science concepts. The learning outcomes in place-based curricula include location-specific learning goals; "place" is used throughout the materials in connection to understanding key concepts and not simply as a motivator or hook. The underlying intention of this place-based curricula is that learners will develop a stronger connection to their place by learning with these materials, and natural opportunities for taking local stewardship action will emerge.

Culturally Relevant Curriculum

Culturally relevant curriculum is designed to create science learning experiences that: 1) validate the value of cultural ways of understanding the natural world as important cultural knowledge and as having contributed to the current body of scientific knowledge (with or without formal acknowledgement), 2) engage students in rigorous science learning based on developing evidence-based explanations to promote academic achievement in science, 3) engage students in cultural learning, 4) support students to reflect on the personal relevance of their cultural and science learning, and 5) incorporate elements of pedagogy supported by the local cultural community.

Development of the Curriculum

Ultimately, the POSOH model for place-based and culturally relevant science curriculum development evolved with guidance by those in the place where the approach was incubated, the Menominee Nation. Dr. Jerilyn Grignon, a Menominee Elder and senior CMN faculty member on the project, guided POSOH with her commitment to the Menominee People and the place that is her home. SDI created a space for partners and ideas that remained firmly rooted in the sovereignty of the tribe and its values. Further, SDI served as an institutional conduit to overcome obstacles of time, distance, lack of relationships, different worldviews and ways of working so the collaboration could develop and evolve. Although the POSOH Project was grounded in the Menominee Nation and commitments to supporting place-based issues and cultures, the benefits of its collaboration were always intended to be holistic and reciprocal among all participants.

The commitment to collaborative curriculum design and development was integral to the POSOH Project from its inception (Lauffer, 2014). From the start, it was understood that facilitating processes for collaboratively and intentionally

deciding what is valuable for students to learn in local schools (and what is highly valued in teaching) creates opportunities for building a shared, local, systemic vision and goals for education. While the work is framed in the context of national standards and standardized academic expectations, it is understood that every school, classroom, and outside-of-school learning experience determines the context, experiences, and expectations for learners. Thus, schools in close proximity to the Menominee Forest which serve student populations that include Menominee youth have good reason to use curricula and teaching practices that reflect and integrate the forest context with Menominee wisdom and ways of knowing. Fortunately, the POSOH Project was able to connect with Jeff Grignon, Forest Regeneration Forester for Menominee Tribal Enterprises, who developed a strong connection with SDI and worked closely with many facets of the Project. As Grignon collaborated on science curriculum design with the POSOH Project through SDI, he contributed to the reciprocal learning that grew among project partners, providing for this article a concrete example of how SDI bridges multiple dimensions of importance to Menominee sustainability and sovereignty.

First, consider typical curriculum design and development for contrast to the POSOH approach and the difference that our forester-collaborator made. In the best-case scenario for national science curriculum development, a relatively small group of scientists and qualified science educators decide the learning outcomes for their curriculum based on science standards (Bybee and McInerney, 1995; Ninnes, 2001). Then, they draw upon their own experiences and knowledge of the developmental stages and learning needs of students for whom they are writing lessons, and together they write a set of lessons. Occasionally, side-bar stories or examples are included to highlight scientists' perspectives or career paths to encourage science-oriented academic goals. Although well-designed science lessons are written in the context of natural phenomena that are typically chosen to be familiar to the majority of students

(National Science Teachers Association, 2014), it is not possible to write curricula for the masses that serve specific needs of students who live in their own, unique communities. Although part of a capable teacher's practice includes refining lessons to reflect local priorities and contexts, it is unreasonable to expect teachers to have the time or expertise to independently integrate concepts that support appreciation for and understanding of the interdependence and interrelationships involved in sustainable forest management. Further, when we care to also value the wisdom and perspective that underpins sustainable management in Tribal forests, then we need that authentic perspective also involved during curriculum development. Therefore, POSOH Project leadership assembled a diverse team of collaborators — including forester, Jeff Grignon — to design science units with context and perspectives valuable for future local citizens, in support of sustainable forest management.

Grignon brought to the POSOH curriculum design team his understanding of *Napanoh Pemecwan*, or patterns of self-similarity in the universe, as a learning-thinking lens that emphasizes the holistic concept of Menominee sustainability. The idea that there are self-repeating patterns of organization at different temporal and spatial scales provides an understanding of environment that he uses both in how he makes forest management decisions and in other aspects of life. This resonated with others in POSOH's collaborative curriculum design team, particularly when Grignon guided visits to the Menominee Forest and explained his commitment to acknowledging patterns that exist throughout all communities across generations. Grignon shared his perspectives about learning from patterns in the relationships among plants in the forest — for example, learning from the forest where elder plants prepare the way and nurture those that follow. In this case, the older trees (Maple and Pine Nations) serve as leaders/mentors to the younger understory trees, shrubs, and plants as part of their communal responsibilities. He opened up to our collaborative group with concrete examples of how one could draw upon the elder knowledge system, blending into his

role as MTE Forest Regeneration Forester combinations of traditional ways of knowing with mainstream ecological ways of knowing to listen to the intelligence of the forest itself. The elder plants teaching humans, the understanding of patterns and repeated cycles, and the web of connections — these create the lens through which all forest management information that Grignon gathers becomes interpreted and made useful in his day-to-day and long-term forestry practices.

Along with Grignon's perspectives, POSOH's collaborative design team discussed and integrated knowledge from teachers working firsthand with area youth, scientists, science education researchers, culture teachers, and contributors from the neighboring Oneida Nation of Wisconsin. Together, the team determined the central question for the Project's first science unit would be, *What makes the Menominee Forest unique?* The context for learning from the Forest and the examples of sustainable practice were all thoroughly integrated into the content and pedagogy of every lesson, not relegated to an occasional sidebar or margin note. The remaining science units developed by the POSOH Project would then expand on that question in support of developing a future citizenry that would appreciate and take direct responsibility for stewardship and sustainable practices, addressing the tensions that were articulated by the SDI model of sustainability. Reciprocally, Jeff Grignon and others learned about current learning research, priorities for pedagogy and teaching that emphasize academic rigor for all learners, trends in current bioenergy and sustainability research, and more. In addition, POSOH's collaborative work grew supportive networks of friends and colleagues among its participants.

Out of all this work emerged new visions for and science units that support future generations to become the foresters and citizens who enact and support the ongoing evolution of sustainable management practices for the Menominee Forest and surrounding areas. And by extension, the work also supports future opportunities

for others to learn from the wisdom of the Menominee's sustainable forest management practices.

Supporting Future Leadership:
POSOH's High School and Undergraduate Youth-Centered Action Research and Leadership Development

Just as SDI's model for sustainability recognizes the interconnectedness of all dimensions that relate to sustainability, the POSOH Project was designed with a multifaceted approach to support systemic change. Therefore, POSOH's leadership collaboration from the start recognized that addressing all dimensions of sustainability needed to include support in both formal and informal teaching and learning environments to effectively impact the sustainability of the Menominee Forest. From this commitment emerged POSOH's Sustainability Leadership Cohort (SLC), which was designed to facilitate the empowerment of Menominee and other youth in the region to broaden their worldviews and become leaders in environmental and cultural stewardship. The strategies included building a strong group dynamic, the concept of boundary crossers (through travel and system thinking), and greater sense of place.

The SLC also facilitated a community-action research project based in the idea of engaging and empowering youth voice and their ability to add unique and important narrative to the community and the world. We inserted this community-based action research model into a mode which saw us each — in an intergenerational learning model that included high school students, undergraduate interns (traditional and non-traditional students), Elders, media specialists, artists, and educators — as learners while diminishing the authoritarian expert-driven hierarchical nature and limited participatory vision of many education and "development" systems (Flick, 2008; Freire, 1970/2000; Smith, 1999). The youth became leadership drivers, in this sense, while all participants became empowered researchers and voices in a learning-

by-doing team project. Each youth had a unique way of seeing and representing what she or he heard that implicitly and explicitly defied colonialism and settler futures — skills they will carry into the future (Bang et al., 2014; Tuck & Yang, 2012; Tuck, McKenzie, & McCoy, 2014). High school students wrote, directed, filmed, and produced several news media films from 10-45 minutes that can be found online.

Included here is a concrete example to exemplify how the POSOH Project's multifaceted approach can affect the lives of people and overall stewardship actions in ways that emerge from within the "place" to be cared for. The following, written by Cherie Thunder, describes her journey through the POSOH Project, starting as an undergraduate student at University of Wisconsin-Madison who was paid hourly to work on tasks that supported the Project's curriculum development to becoming a POSOH intern, then graduating and becoming the Project's lead for the Sustainability Leadership Cohort. Thunder, who is Menominee and grew up frequenting the Menominee Forest, provides us with a powerful example of how the tension described by the SDI model, involving place-specific priorities, can be served best by sustainable solutions that emerge from the place itself.

> *When I heard about POSOH I had just graduated from the College of Menominee Nation. I was starting my junior year at the University of Wisconsin Madison in the Community and Environmental Sociology program in the College of Agricultural and Life Sciences. Two people who I attended CMN with notified me that the UW-Madison lead for the POSOH project was interested in bringing more Menominee students on board. In the spring of 2012 I started out with POSOH as a student worker developing experimental protocols and conducting research for the curriculum and learning about culturally responsive science teaching and learning. I became fascinated with the Project and amazed by the impact it would someday make on the children fortunate enough to learn in such a unique way.*
>
> *I am especially enticed by the POSOH Project because I can relate to the child from the story in the introduction to the Project that was written in its original proposal. The short story is focused on a young boy who would much rather learn through experience and hands on activities than reading what seems like an endless amount of*

meaningless words. I remember spending my time in middle school science class lost and confused, struggling to make sense of what the teacher was essentially spewing at us out of an ancient textbook. Although my teacher was quite the character and a very caring person, her teaching strategies would never be able to open my mind to the world of science in the way that the POSOH units have already begun to do for students today.

As my time at the university progressed so did the growth of the POSOH Project. The after school sustainability/horticulture club, just one fraction of the multi-faceted project, began in the second year of the five year funding period. After a couple of months, the club grew into a summer pre-college program. The Sustainability Leadership Cohort (SLC) sparked the interest of many students from high schools in the Wolf River watershed area. With over thirty applicants in the first year, the program continued to gain support and interest from the community.

When I was asked to be a mentor for the SLC the thought of working with high school students was a daunting feeling. I always wanted to work with children in some way so I decided to take this chance that was given to me. This opportunity changed and in some cases confirmed my prior opinions and assumptions about what it is like to work with high school-aged students. Now that daunting feeling has passed and I only think about how the work I do will impact the students, no matter what the age. As an intern with the POSOH Project during the summer I was able to work directly with the high school students from the area. I helped them to understand the things that were new to them, whether it was research or interviewing strategies, or introducing them to the world of higher education. I was also there to learn the video production and editing process alongside them.

In 2013 I graduated from UW- Madison with a bachelor's degree in Community and Environmental Sociology. The following summer I was asked to be part of the mentor team for the SLC and graciously accepted. This experience led me to where I am today, coordinating this great program for high school students. Being able to work with students who will one day be the next community leaders is an excellent way to start my career. I am proud to say that these students, all thirty or so from three years, have taught me something that I wouldn't have been able to learn from reading words in a book.

Thunder's story exemplifies how the POSOH Project is intended to support emerging leadership from within the local indigenous communities who are living in the "place" that is connected to the Menominee Forest. Supporting the development

of future leaders who have strong ties to Menominee values and are able to listen to and think systematically about forest management directly addresses priorities identified by the SDI model for sustainability: fostering engagement with forest management (human perception, activity and behavior) that sustains the Forest (natural environment) and promotes sovereignty. Grounded in these priorities, the SLC emerged — and continues to evolve — to support area youth in developing strong commitments to and understanding of their "place," promote participation in higher education, and ultimately, to foster the next generation of community leaders. The SLC Program is committed to respecting cultural values and encouraging holistic thinking, while also exposing students to creative inquiry, critical and transdisciplinary thinking, and various styles of leadership and mentoring. In doing so, the SLC seeks to foster innovative leaders who will become positive change agents for the Menominee Forest, their local communities, extending out to the entire planet.

Conclusions

While there is much that we can learn from tribal forest management practices that can help us find solutions to the complex challenges faced by forest resource managers worldwide, we also have a responsibility to support tribal communities who are struggling to sustain their own practices in the face of mainstream cultural pressures. In many indigenous communities, thinking generations ahead and behind is a value structure that infuses relationships and responsibilities into place and land management. For the Menominee Nation, this includes a long history of natural resource management that is at the heart of its contemporary sustainable forest management practices. The College of Menominee Nation Sustainable Development Institute serves as an institution based on the Menominee experience of sustainable forestry and seeks to revitalize indigenous ways of knowing through collaborative research, education, and outreach initiatives. Education is one key area that surfaces

as an important mechanism to develop connections to place that includes tribal communities, but often confronts and/or stems from colonized frameworks, deficit models, and management structures that lack cultural relevance or grounding in community values and understanding. The intersection of indigenous-led collaborative education projects provides a tool to move forward in the face of traumatic past, presents, and futures in maintaining and rejuvenating indigenous sovereignty of land and place. Lessons learned from the POSOH collaboration guided by the SDI model provide a useful framework for operating within these tense and often misunderstood spaces.

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Perceived Faculty Professional Development Needs at Tribal Colleges and Universities
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Abstract

The continued professional development of faculty is both a necessity and a challenge for institutions of higher education. In this article, Ahmed Al-Asfour and Suzanne Young investigate both faculty perceptions of their professional development needs and the professional development strategies faculty perceive to be successful. Surveying 126 faculty members, including both full-time and part-time faculty, at 13 tribal colleges and universities (TCUs), Al-Asfour and Young analyze particular areas of perceived need and success, finding that faculty perceive their professional development needs overall to be greater than the success of the professional development strategies at their TCUs.

Introduction

Higher education has been part of the United States (U.S.) of America for several centuries. For the past two centuries, different ethnicities started tailoring higher education to meet their own needs. Native Americans are part of the fabric of America, but, having unique needs and wants for higher education to serve tribal members and community needs, established tribal colleges and universities (TCUs). TCUs play a critical role in American Indian communities (Al-Asfour & Abraham, 2016). There are 37 TCUs with more than 75 sites around the U.S. and one TCU in Canada (American Indian Higher Education Consortium, 2016). In order to prepare students for their educational needs, faculty must continually work to stay in the forefront of good teaching practices related to andragogy. Andragogy refers to the method and practice of teaching adult learners. To meet this continuous demand, educators need professional development opportunities from a variety of sources such as educational institutions, researchers and scholars in each respected academic field.

Because professional development has become an expectation in today's higher education institutions, understanding faculty professional development needs is a starting point in improving faculty teaching and research quality. There has been unprecedented attention focused on faculty professional development and adaptability of faculty programs to fulfill the teaching and learning mission for colleges and universities (Palm, 2007; Smith; 2007; Waiwaiole & Noonan-Terry, 2008). Bellanca (2002) observed that the emerging need for faculty development in higher education is due to increasingly diverse student populations and administrators' higher expectations of faculty members.

Literature Review

Since the release of the two studies related to TCU faculty professional development (Tierney, Ahern, & Kidwell, 1995; Voorhees & Adams, 2004), there have been few studies related to TCU faculty professional development needs. According to Voorhees and Adams (2004), the National Center for Education Statistics (NCES) conducted studies related to faculty professional development nationwide, but the numbers included in the studies of TCU faculty members were very low and did not draw a true picture of TCU faculty professional development needs.

Researchers have agreed that professional development is important for educators and should be considered a component of their work (Darling-Hammond & Youngs, 2002). Coskie and Place (2008) suggested that professional development requires personal, professional, financial investment, and commitment by educators and their institutions. It is also important to know the lasting impact of any professional development to educators based on their needs. Hence, in order for TCUs to enhance the quality of faculty teaching, there must be an understanding of the professional development needs from a faculty viewpoint. The Bush Foundation

understood the needs for professional development for TCU faculty members and had invested a significant amount of financial support in TCUs faculty professional development (Tierney et al., 1995). To help clarify the professional development needs for TCU faculty members, this study was undertaken to identify the faculty needs as they perceived them.

Faculty development has been defined in many different ways. Some higher learning institutions use terms such as faculty professional development, career development, career planning, professional growth and many other synonymous descriptors. Odden and Archibald (2009) advocated for the use of faculty development to increase knowledge of educators and provide support for any shortfalls faculty might have. Mundy, Kupczynaski, Ellis, and Salgado (2012) recommended that faculty development is essential to further enhance education to students and increase engagement of faculty within their field of study.

Knowles (1980) developed the adult learning theory, which was later substantiated by researchers such as Layfield and Dobbins (2002). Knowles (1980) surmised that adult learners are highly motived in learning when there is a link between perceived need and the actual professional development activities provided to them. If professional development is not linked to the need, adult learners may be disengaged (Layfield & Dobbins, 2002). In Knowles' (1980) words, "… adults should be engaged in planning of their learning experiences" (p. 47). Faculty professional development needs at TCUs are similar, in many aspects, to faculty members' needs at other higher education institutions except that TCUs' missions and visions are different. At TCUs, faculty members provide higher education that is culturally based for their students; therefore, professional development at TCUs must focus on strengthening culturally-based pedagogy and curriculum.

In order to create a strong professional development opportunity for educators, "the gap between theory and practice could be eliminated by reducing

theory to what was needed to perfect the practice of teaching." (Findlay, 1992, p. 28). To close the gap between theory and practice of what is needed for educators, it is important to understand, and then determine, the professional development needs for faculty teaching at minority higher education institutions such as TCUs. By knowing the current needs of educators for professional development, it can effectively enable administrators to create beneficial changes to occur in classrooms (Wash, Lovedahl, & Paige, 2000). Many mainstream higher education institutions have developed faculty professional models tailored to meet the needs of their faculty members.

Models of Faculty Development

Faculty development models described here are some of the many professional development programs at colleges and universities across higher learning institutions. For example, The University of Northern Kentucky, College of Education, created a new model for faculty development after conducting a qualitative study with faculty members through interviews (Valeria, 2007). The study indicated that there was need for professional development in three areas of technology (Valeria, 2007). The needs for professional development were (a) access to technology, (b) training on how to use the technology, and (c) time to redesign curriculum.

Schechner and Poslusny (2010) developed a new model called cohort-based, long-term faculty development. This model has five objectives to facilitate the transition of new faculty: (a) providing timely and consistent knowledge of policies, procedures, and opportunities, (b) mentoring new faculty to develop skills for teaching, research, and service and to achieve balance among those facets of their work, (c) creating a collegial community, (d) providing an introduction to the culture of the institution, and (e) recruiting and retaining excellent teacher-scholars.

Lumpkin (2011) proposed another model for mentoring university faculty, which is to "build upon the assumption that mentoring is the process of mentors

supporting, advising, and encouraging protégés as protégés and mentors develop mutually beneficial relationships" (p. 361). The model is based on the following areas: (a) conceptualization, (b) design and development, (c) implementation, and (d) evaluation. Conceptualization is important in order to determine how the mentoring program should be constructed to best serve its purposes. In order to be effective, a mentoring program should have clear purpose, goals, and strategies. Additionally, mentors and protégés need to be selected and matched based on their needs. These factors are planned and arranged from design to development. Implementation starts with orientation, training, and mentoring. In this stage, mentors and protégés have regular meetings and interactions with one another. Finally, there should be an evaluation of the program with formative and summative evaluation assessment in order to measure outcomes and impacts on an ongoing basis. The importance of this stage is to enhance benefits for both protégés and mentors to make changes as needed.

Other professional development models work on more practical levels, encouraging faculty members to develop both their academic skills and their organizational profile. For instance, a faculty development portfolio has been used as a method of professional development. Stanley (2001) developed a conceptual framework for faculty development that uses a portfolio approach. This framework outlines six steps: (a) describe the faculty development responsibilities, (b) choose items for the faculty development portfolio, (c) prepare narrative statements for each item, (d) arrange items in order of importance, (e) secure evidence for the items, and (f) incorporate the portfolio into curriculum vitae.

Since 2010, Oglala Lakota College, a leading TCU higher education institution offering bachelors and master's degrees, has been using the concept of portfolio to create an on-going professional development program. Faculty members are required to apply for a three or five-year contract after working for the college for three years.

The portfolio contains five items: (a) Lakota language and culture knowledge, (b) teaching, (c) scholarship, (d) service to college, and (e) service to community (Oglala Lakota College, 2010). In each of these items, faculty members must meet a threshold and overall accumulative points to receive a three or five-year contract. Faculty members who score the minimum accumulative points will receive a multiple year contract, salary increase and a change of title from assistant professor to either associate professor or professor.

There are various models for professional development programs that academic departments, colleges, and universities employ to meet their needs. Each design is based on specific needs outlined by certain objectives. The models discussed above are both similar and different. Each model developed was designed to meet the needs of faculty members. TCUs, like these institutions, strive to improve their institutions by providing professional development for faculty.

Research Questions

This study was part of a larger research study focused on faculty professional development needs at TCUs and was designed to examine faculty professional development needs. Two research questions were examined:

1. How do TCU faculty differ on their perceptions of the success for professional development strategies and perceptions of their needs for professional development?
2. How do Native and non-Native faculty members of different ages differ on their perceptions of professional development success and need?

The research questions focus on the perceptions that TCU faculty have about the success and needs for professional development for their own personal growth and

development as faculty — i.e., what they think has worked for them and what they think will work for them — and the variations in these perceptions across age and between Native and non-Native faculty at TCUs.

Methodology

The researchers determined the best approach to conduct this study was to use an online survey as it provides anonymity. Andres (2012) recommended using this approach to data collection since it is simple, inexpensive, and eliminates human errors of data entry. However, Andres (2012) also warned that some of the disadvantages to this method can be possible technical problems and difficulty achieving a high number of responses. The same concerns were also echoed by other researchers such as Hunter (2012).

For the purpose of this study, faculty members teaching at TCUs are defined as those who are full-time instructors and part-time or adjuncts. Even though TCUs are not higher education research institutions, they are higher education teaching institutions; some TCUs, such as Oglala Lakota College, provide a path to a three-year or five-year contract for their faculty members. In the initial phase of this study, researchers sent a letter to all TCU administrators inviting their faculty to participate in this study. The target study sample consisted of all TCUs' faculty members that replied to the research letter acknowledging that their faculty members could take part in the study.

The study used a survey designed to assess TCU faculty professional development needs (see Appendix A). The survey consisted of a 35-item scale. An e-mail, with a link to the survey, was sent to TCU administrators including presidents, vice presidents of instruction, academic deans, and others. After permission was received to conduct the study, the e-mail with the link was then forwarded to all faculty members.

Prior to completing the online survey, all faculty members who participated in this study were asked to read an introductory description and provide their consent to participate in the research. Researchers such as Fink (2003) recommend the use of an introduction that precedes the survey questions in order for participants to understand their rights and clarify the main purpose of the research. Subsequent to the initial invitation to participate in the study, researchers sent two e-mail reminders as a follow-up.

Results

Description of Respondents

A description of the faculty members who participated in this study are displayed in Table 1. The estimated number of faculty for the 13 TCUs that chose to participate in this study was 389. There were 126 faculty members who responded to the survey, which is 32% of the overall population. The majority of the participants were 55 years of age or older (n=57, 71%), and most were full-time faculty members (n=86, 70%). Female participants constituted the majority (n=76, 60%) and most of the participants were not tribal members (n=85, 67%). The majority of participants had five or less years of experience teaching at a TCU and most held a master's degree.

Table 1: *Demographic Characteristics of TCU Faculty Members Participating in Survey (N=126).*

	N	Native	Non-Native	Percent
Age:				
54 or less	35	8	27	28%
55 or greater	90	33	57	71%
No response	1			1%
Contract Type:				
Adjunct	27	6	21	22%
Full-time	86	31	55	68%
Other	10	3	7	8%

No response	3			2%
Gender:				
Female	76	27	49	60%
Male	48	14	34	38%
No response	2			2%
Native American:				
Yes	41	41	0	33%
No	85	0	85	67%
Education:				
Associate Degree	3	2	1	2%
Bachelor's Degree	19	8	11	16%
Master's Degree	76	22	54	60%
Doctoral	28	9	19	22%
Discipline Areas:				
Applied Science	5	1	4	4%
Business	14	5	9	11%
Education	16	9	7	12%
Foundational Studies	4	3	1	3%
Humanities and Liberal Arts	27	9	18	22%
Math and Science	23	2	21	18%
Nursing	9	1	8	7%
Technology	5	2	3	4%
Others	22	9	13	18%
No response	1			1%
Teaching Experience at TCU:				
5 or less	55	13	42	44%
6-10	33	12	21	26%
11-15	15	5	10	12%
16-20	7	4	3	6%
21 or more	13	6	7	10%
No response	3			2%

Success and Needs for Professional Development

How do TCU faculty differ on their perceptions of the success for professional development strategies and perceptions of their needs for professional development? Faculty members were asked to rate 15 professional development activities identified in the literature as topics of professional development that may assist TCU faculty members to resolve some of their challenges. Paired sample t-tests were used to compare perceptions of success for strategies with perceptions of professional development needs for each of the 15 items. A Bonferroni correction was applied

(.05/15=0.003) for the 15 *t*-tests and significant differences were found between their ratings for 13 of the 15 items. As can be seen in Table 2, perceptions of needs for professional development were significantly higher than the perceptions of success for strategies used at TCUs for the 13 items. In other words, TCU faculty reported that all except two strategies, professional development for accreditation and professional development for understanding student culture, were small to moderately successful. However, all of the 15 strategies were perceived as areas in which the faculty needed professional development, ranging from a moderate amount to a great deal. Thirteen of the fifteen strategies were seen to be significantly more necessary than the ways in which the professional development was being implemented.

Table 2*: Means, Standard Deviations, t-Tests, and p-Values of Professional Development Success and Needs of TCU Faculty Participating in Survey*

Topics	Success M (SD)	Need M (SD)	*t*	*p*
Accreditation matters	3.31 (1.23)	3.41 (1.10)	0.76	0.452
Assessment *	2.93 (1.12)	3.41 (1.10)	3.76	<.001
Classroom management *	2.29 (1.12)	3.18 (1.16)	6.84	<.001
Coaching/mentoring *	2.61 (1.24)	3.28 (1.13)	5.04	<.001
Curriculum development *	2.63 (1.24)	3.48 (1.15)	5.78	<.001
Developing collegial faculty *	2.78 (1.27)	3.37 (1.22)	3.99	<.001
Diversity issues *	2.81 (1.15)	3.21 (1.22)	2.91	0.004
E-course/online development *	2.45 (1.17)	3.41 (1.19)	7.08	<.001
In-house/job embedded development *	2.59 (1.16)	3.33 (1.15)	5.92	<.001
Instructional development *	2.66 (1.14)	3.63 (1.13)	7.52	<.001
Leadership development *	2.43 (1.16)	3.45 (1.19)	7.35	<.001
Organizational development *	2.45 (1.17)	3.36 (1.19)	6.53	<.001
Student advising *	2.80 (1.16)	3.53 (1.10)	5.76	<.001
Attending conferences *	2.71 (1.23)	3.30 (1.22)	4.24	<.001
Understanding student culture	3.07 (1.32)	3.39 (1.21)	2.43	0.016

Note: The scale values were: 1=none, 2=small amount, 3= moderate amount, 4=quite a bit, and 5=a great deal. * indicates less than .003.

How do Native and non-Native faculty members of different ages differ on their perceptions of professional development success and need? The 15 items for successes and for needs were combined to find means for each of the four groups. See Table 3 for the means. Two two-way Analyses of Variance were used to examine the means and to determine difference in groups.

Table 3: *Means, Standard Deviations, and Ns for Overall Success and Need of Professional Development by Native and Non-Native Faculty Grouped by Age.*

	Age Group by Native and Non-Native M (SD)					
	Age less than 55		Age 55 or older			
	Native	Non-Native	Native	Non-Native	Overall Native	Overall Non-Native
Success	2.89 (0.99) n=8	2.65 (0.93) n=26	2.53 (0.97) n=32	2.79 (0.79) n=57	2.60 (0.98) n=40	2.75 (0.83) n=83
Overall Age	2.71 (0.93) n=34		2.70 (0.87) n=89			
Need	3.98 (0.76) n=8	3.63 (0.63) n=26	3.44 (1.04) n=32	3.14 (0.81) n=57	3.54 (1.01) n=40	3.29 (0.79) n=83
Overall Age	3.71 (0.67) n=34		3.25 (0.91) n=89			

Note: Scale ranged from 1 (none) to 5 (a great deal).

When examining the two-way Analysis of Variance for perceptions of professional development success, no significant differences in age groups, Native or non-Native status, or interaction was found. However, in the perceptions of need for professional development, the younger age group, less than 55 years old, expressed a significantly stronger need for professional development when compared to those

who were 55 years of age or older, regardless of whether or not they were Native or non-Native faculty. No difference was found between Native or non-Native faculty or in the interaction of age group and Native/non-Native status. See Table 4 for the Analysis of Variance summaries for dependent variables, success and need.

Table 4: *Summary of Analysis of Variance for Success and Need Based on Age Group and Native/Non-Native Status.*

Source – Success	SS	Df	MS	F	p
Age group	0.245	1	0.245	0.314	0.576
Native/Non-Native	0.003	1	0.003	0.004	0.948
Age group x Native/Non-Native	1.182	1	1.182	1.515	0.221
Error	92.833	119	0.78		
Total	991.373	123			
Source – Need					
Age group	5.068	1	5.068	7.066	.009
Native/Non-Native	2.022	1	2.022	2.819	.096
Age group x Native/Non-Native	0.018	1	0.018	0.024	0.876
Error	85.360	119	0.717		
Total	1495.088	123			

A review of the comments made by faculty in the open-ended questions in the survey reveals more in-depth information about the respondents. The open-ended questions asked about types and topics of professional development that faculty believe are beneficial for professional development; curriculum development was mentioned often. Some representative comments made by faculty were "curriculum development ideas for incorporating Lakota perspective (or other Native perspectives)" and "curriculum and classroom teaching techniques - anything that is going to help me help my students - that is why I am here." Also, respondents repeatedly indicated that attending conferences (local, regional, and national) is the preferred way of receiving professional development.

In summary, faculty who are teaching at TCUs perceived strong needs in all areas of professional development that were identified in the literature. The needs were significantly greater than their perception of success in all areas except for

accreditation matters and understanding student culture. When examining the overall need and the overall success based on age groups and Native/non-Native status, the only significant difference was found in faculty needs; faculty in the younger than 55 age group expressed stronger needs than faculty who were 55 or older.

Discussion

The first research question addressed faculty professional development successes and needs at TCUs. Faculty members were asked to rate 15 challenges identified in the literature as topics of professional development that may assist TCU faculty members to resolve some of their challenges. All of the 15 items on the needs list were rated as at least a moderate amount of need. When needs were compared to their perceptions of the successes in professional development, 13 of the 15 activities were perceived as significantly stronger needs compared to their success. Only two differences were not significant; professional development in accreditation and in understanding student culture were viewed as being quite successful yet were still identified as being needed by the faculty.

In light of the findings from this study and past studies related to similar topics, instructional development very likely should be a part of any professional development model for faculty members in higher education (Barksdale et al, 2011; Nelsen & Siegel, 1980; Wilkerson & Irby, 1998; Young et al., 2010). Instructional development was rated as one of the most needed professional development topics for faculty members at TCUs which supported the findings from previous studies (Young et al., 2010).

When professional development successes for Native and non-Native faculty in two age groups were compared on all 15 items, no significant differences were found. However, when these same groups were compared on their need for professional development, younger faculty, regardless of whether or not they were Native

American, expressed significantly stronger needs. It is apparent that older faculty, the majority of participants in this study, are less interested in professional development than their younger counterparts.

Limitations and Recommendations

The results of this study provide some interesting findings about the perceptions of TCU faculty members in regard to professional development needs. There are some limitations to the study to be taken into consideration. This research study focused on faculty members teaching at TCUs. Therefore, the analyses and recommendations are limited to TCUs. In addition, the researcher e-mailed TCUs administrators to permit their faculty members to participate in this study. The majority of TCUs contacted via e-mail did not respond to the e-mails and some asked for a fee for reviewing the research survey before considering it. The study includes the 13 TCUs that responded affirmatively regarding participation. Furthermore, responses were voluntary and the data were self-reported based on perceptions. These factors limited the scope of the study sample and the participation of some faculty members. It is noted that the level of professional development for each TCU is different from one institution to another due to many variables, such as funding allocated to professional development, size of the college or university, interest by faculty members and their institutions in professional development, and other variables. Despite these limitations, based on the findings presented in this study, the following recommendations offer insights for professional development programs at TCUs.

In order to ensure the effectiveness of TCU faculty members, administrators should allocate resources to improve faculty teaching. According to the survey responses of the faculty, thirteen of the fifteen areas of professional development were viewed as significantly more needed than they were successful. TCUs are higher

education institutions dedicated to teaching; hence it should be paramount for TCU administrators to meet their faculty members' professional development needs in order to enhance their teaching effectiveness. In addition, these administrators, faculty, and individuals with a stake in TCUs should use the results of this study as a guide to the improvement of future professional development.

Assessment is one of the topics that should be considered. TCUs must be accredited institutions in order to receive federal funds. All TCUs that participated in this study are accredited by Higher Learning Commission (HLC). Because following HLC guidelines and criteria are very central to receiving accreditation, TCUs involve their faculty and other stakeholders with this process. According to the survey, TCUs' faculty members who participated in this study indicated that further professional development is needed in the area of assessment.

"Accreditation matters" was the only one of the 15 professional development areas not rated by the faculty as significantly more needed than successful. However, faculty may not have a strong interest in accreditation. There are several criteria set by HLC for higher education institutions relating to accreditation. TCUs are teaching institutions and faculty members allocate most of their time to teaching students. Therefore, the researchers recommend that TCUs divide the criteria set by HLC between institutional administrators and faculty, and encourage development of committees to address each criterion. The five criteria institutions required to meet are: a) mission; b) integrity: ethical and responsible conduct; c) teaching and learning: quality, resources, and support; d) teaching and learning: evaluation and improvement; and e) resources, planning, and institutional effectiveness (Higher Learning Commission, 2016). For example, TCU administrators can assign faculty members the responsibility of criteria C and D to lead on in order for a TCU to meet the requirement set forth by HLC and allow faculty members to be engaged in the development of their own institutions. The five criteria can also be a rotational

schedule between administrators and faculty members. By doing this, faculty can develop a general understanding of all criteria and have an in-depth understanding of each of the criteria.

"Instructional development" was rated as the most needed professional development strategy by the respondents in this study. Howard (1999) asserted that Caucasian educators who are placed in multicultural settings should be provided professional development to help them understand students' culture(s); however, this present study suggested that all faculty, regardless of their background, are in need of professional development. Because instructional development can be comprised of broad topics, each TCU needs to determine the main instructional development topics that their faculty, both Native Americans and non-Native Americans and faculty of all age groups, need most. The most needed topics for each TCU can easily be known through a survey of faculty or in-depth focus groups with faculty members.

Another recommendation is that TCU administrators and policy makers continue to encourage and support professional development programs (Tierney, Ahern, & Kidwell, 1995). Many TCUs received grants from the Bush foundation for faculty development and other TCU faculty members received funding from the American Indian College Fund. Even though TCUs and their faculty members have received grants for faculty development from several agencies, TCUs need to show commitment to faculty professional development by providing incentives and compensation for faculty to attend conferences or to seek terminal degrees. According to the faculty who completed the survey, professional development by attending conferences was rated as significantly more needed than it is successful.

It is very important for TCU administrators to understand the constant need of faculty for professional development and self-improvement. TCU administrators need to evaluate their professional development programs and align them with faculty needs, institutional goals, and the tribal community needs in order to further develop

Native American human capital on the reservations and beyond. Faculty professional development is one of the criteria that HLC requires. Because this is important to HLC and faculty, TCUs must make faculty professional development a priority in the annual budget and overall strategic plan.

The success of the researchers in conducting this study at TCUs can be attributed to the warm collegial friendship and work between the primary researcher and other faculty members from many TCUs. Many TCUs have very complicated IRB processes that can take several months and could require fees to be paid for reviewing research projects. To complicate the matter further, TCUs sometimes also require that the tribal IRBs approve research projects before considering a review of any proposal submitted to them by researchers. A researcher would then need to receive permission from a tribal Institutional Review Board (IRB) and then institutional IRB for each college or university. The researchers recommend that in order for future researchers to be successful in conducting a study at TCUs or tribal entities, researchers should work closely with TCU faculty and build trust with administrators at TCUs and their affiliated organizations, such as the American Indian Higher Education Consortium (AIHEC).

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Appendix A:
Survey of Tribal Colleges and Universities (TCUs) Faculty on Professional Development Needs

Part A- Professional Development (PD) Needs as a TCU Faculty member
Please rate the importance of professional development for you as a faculty member.

1. As a faculty member, please rate the main challenges you perceive in each of the following areas:

1= No Challenge, 2=Little Challenge, 3=Somewhat Challenge, 4= Challenge, 5=High Challenge

Adapting to institutional culture	1	2	3	4	5
Learning Native American culture(s)	1	2	3	4	5
Sustaining personal commitment	1	2	3	4	5
Student retention	1	2	3	4	5
Working with difficult students	1	2	3	4	5
Low salary	1	2	3	4	5
Workload	1	2	3	4	5

2. As a faculty member, what professional development strategies and best practices you perceive as successful at your tribal college or university in each of the following areas:

1= None, 2=Small amount, 3=Moderate amount, 4= quite a bit, 5= great deal

Accreditation matters	1	2	3	4	5
Assessment training	1	2	3	4	5
Classroom management training	1	2	3	4	5
Coaching/Mentoring	1	2	3	4	5
Curriculum development	1	2	3	4	5
Developing a collegial faculty	1	2	3	4	5
Diversity issues	1	2	3	4	5
E-course development/ online teaching	1	2	3	4	5
Funding opportunities	1	2	3	4	5
In-house training (job-embedded)	1	2	3	4	5
Instructional development	1	2	3	4	5
Leadership development	1	2	3	4	5
Organizational development	1	2	3	4	5
Student advising	1	2	3	4	5
Attending local/regional/national conferences	1	2	3	4	5
Understanding student culture	1	2	3	4	5

3. As a faculty member, choose how much professional development you perceive is needed for you in each of the following areas:

1= None, 2=Small amount, 3=Moderate amount, 4= quite a bit, 5= great deal

Accreditation matters	1	2	3	4	5
Assessment training	1	2	3	4	5
Classroom management training	1	2	3	4	5
Coaching/Mentoring	1	2	3	4	5

Curriculum development	1	2	3	4	5
Developing a collegial faculty	1	2	3	4	5
Diversity issues	1	2	3	4	5
E-course development/ online teaching	1	2	3	4	5
Funding opportunities	1	2	3	4	5
In-house training (job-embedded)	1	2	3	4	5
Instructional development	1	2	3	4	5
Leadership development	1	2	3	4	5
Organizational development	1	2	3	4	5
Student advising	1	2	3	4	5
Attending local/regional/national conferences	1	2	3	4	5
Understanding student culture	1	2	3	4	5

Part B-Personal Information
Please tell us a little about you.

1. Are you Male or Female?
2. Are you a Native American Tribal member? Yes   No
3. What is your age:
   54 or less
   55 or greater
4. What is your discipline area of teaching?
   Applied Science
   Business
   Education
   Foundational Studies
   Humanities and Liberal Arts
   Math and Science
   Nursing
   Technology
   Other
5. What is your highest level of education completed?
   Associate's Degree
   Bachelor's Degree
   Master's Degree
   Doctoral Degree
6. How many years have you been a faculty member at a TCU:
   5 or less
   6-10
   11-15
   16-20
   21 or more
7. What contract type do you have?
   a. Adjunct
   b. Full-time
   c. Other

Part C- Professional Development
Please provide your comments for the following questions.

1. Please describe the type of professional development that you believe is most beneficial for you as a faculty member.
2. What professional development topics do you believe would benefit you most in helping Native American students?

Factors Influencing Health and Wellness among American Indians
Living in Rural, Tribal Communities

Cynthia Lindquist, Cankdeska Cikana Community College
Jennifer Boeckel, Essentia Institute of Rural Health
Danielle Myers-Wilson, Essentia Institute of Rural Health
Pat Conway, Essentia Institute of Rural Health

Abstract

Health and wellness are critical to the life and strength of Native communities. In this article, Cynthia Lindquist, Jennifer Boeckel, Danielle Myers-Wilson, and Pat Conway fill a gap in research and knowledge, embarking on a collaboration between Cankdeska Cikana Community College and Essentia Institute of Rural Health that produced the Spirit Lake Nation Comprehensive Community Assessment. This comprehensive tribal community assessment, based on community-based participatory research principles, describes individual, family, and community factors that influence health (including behavioral health) and life satisfaction of American Indians living in rural, tribal communities. The mixed-methods case study, using both surveys and interviews, summarized already existing data and collected new data through interviews with 285 Spirit Lake Nation members. Community members reported high levels of life satisfaction, in spite of high rates of tobacco use, obesity, and poverty. Participants overwhelmingly identified substance use and mental health issues as the most important community health needs. The authors' analysis confirms the importance of family and community as central to improving life satisfaction, particularly in devising strategies to protect children from adverse childhood experiences and improve access to quality health care, especially mental health and substance use treatment.

Introduction

Nationally, people who are American Indian are younger, lower income, report higher rates of violence and adverse childhood experiences (Burchill-Blaisdell, Goldbaum, & Serafin, 2011; Driscoll, Szafran, Healey, Johnston, & Dotterer, 2012), and have higher rates of morbidity and mortality than people who are non-Indian (North Dakota Department of Health, 2015; Shiels et al., 2017). Information regarding health and psychosocial status of American Indians is frequently inaccurate

or missing; health status reports commonly include people who are American Indian in "other" categories or suppress numbers because the numbers are small (Centers for Disease Control and Prevention, 2010). This leaves a gap in knowledge about communities — e.g., reservations — where the predominant population is American Indian. Efforts to address this lack of information, such as the Northwest Portland Area Indian Health Board's "Indian Community Health Profile Project Toolkit" (Angus, Stehr-Green, Robertson, & Lutz, 2005), provide guidance for communities to develop a body of knowledge regarding American Indian health. The great diversity among tribal communities makes it difficult to generalize from one community to another, increasing the need for data collection across multiple settings.

The Spirit Lake reservation, established by Treaty between the United States Government and the Sisseton Wahpeton Sioux (Dakota) Bands in 1867 in East Central North Dakota, addressed this need for data to better understand community needs and to guide development of programs, by conducting a tribal, comprehensive, community assessment. Spirit Lake Tribe's college, Cankdeska Cikana Community College (CCCC), led the development and implementation of the comprehensive assessment with the establishment of a work group comprised of representatives of the tribe and the tribal college programs. The results are valuable for this community, and add to the picture of issues affecting American Indian families in other rural, tribal areas. This article describes individual, family, and community factors that influence health (including behavioral health), wellness, and life satisfaction of American Indians living in rural, tribal communities.

Method

This mixed-methods case study presents the results of a community survey to address the research question: *What individual, family and community factors influence health (including behavioral health), wellness, and life satisfaction of American Indians living in rural,*

tribal communities? The Spirit Lake Nation Comprehensive Community Assessment (CCA) was guided by Community-Based Participatory Research (CBPR) principles, with a Community Workgroup[1] representing diverse tribe and tribal college programs, participating in planning through dissemination of results (Israel, Schulz, Parker, & Becker, 1998; Johnson, Bartgis, Worley, Hellman, & Burkhart, 2012; Minkler & Wallerstein, 2008). The workgroup examined already-existing data and collected new data to describe the Spirit Lake community's health and wellness. The project received a tribal resolution supporting the project and IRB approval through the Essentia Health Institutional Review Board.

Sample

The sample was recruited through two methods: 1) parents/guardians of children in Head Start, and 2) households listed on the tribal housing roster. At CCCC Head Start's annual end of year family celebration, May 26 and June 2, 2015, Head Start staff informed parents/guardians of children in Head Start about the study. The second group, individuals who were listed as the head of household, received a letter explaining the study, with an invitation to participate. Flyers were placed throughout the community, and announcements were made on the local radio station.

The CCA sample included 285 people age 18 and older representing their households. The participants' average age was 40; 70% were female (see Table 1). Ninety-two percent were enrolled members of Spirit Lake Tribe; 80% had lived in the community for 18 or more years. Forty-six percent were never married, 34% married or an unmarried couple living together. Fifty-one percent had a high school degree; 28% had less than a high school degree; and 22% had an Associate's Degree,

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[1] The Community Workgroup consisted of the authors and Valerie Bull, Erica Cavanaugh, Jolene Crosswhite, Johnda Griffin, Celeste Herman, Monique Lambert, Challsey Lawrence, Roxanne Laugsand, Cheryl Longie, Ila McKay, Lacey McKay, Bonita Morin, Rebecca Mousseau, Sarah Olimb, Tina Ploium, Jen Prasek, Jean Robertson, Joe Sherman, Jackie Simonson, Tyson Sullivan, Roxanne Wells, Doug Yankton, and Stuart Young.

Bachelor's Degree, or Graduate or Professional degree. Thirty-eight percent of the participants reported an individual income of under $5,000; 73% under $20,000 (see Figure 1). The most common number of adults in a household was two, with a range from one to 10 adults per household; the average number of people per family was 4.86 (range 0-19 people in a family). The sample was similar to the general population at Spirit Lake in terms of age, the percent who were never married, and high school graduation rates; the sample had a higher percent of women than the tribal average and was lower income ($14,999 vs. $26,118).

Table 1: *Demographics of Sample Participating in the Community Assessment (N=285).*

Gender	N	%
Male	85	29.8
Female	200	70.2
Marital Status		
Never married	131	46.0
A member of an unmarried couple living together	50	17.5
Married	46	16.1
Divorced, Separated	37	13.0
Widowed	12	4.2
School Completed		
Less than high school graduate	80	28.1
High school graduate or GED	145	50.9
Associates/Technical Degree	50	17.5
Bachelor's Degree +	10	3.6
Income		
0-9,999	164	57.5
$10,000 to $19,999	45	15.8
$20,000 to $29,999	30	10.6
$30,000 to $39,999	17	6.0
$40,000 to $49,999	10	3.6
$50,000+	7	2.3

Note: N=273 for income.

Figure 1: *Income Distribution of Sample Participating in Community Assessment (N=273).*
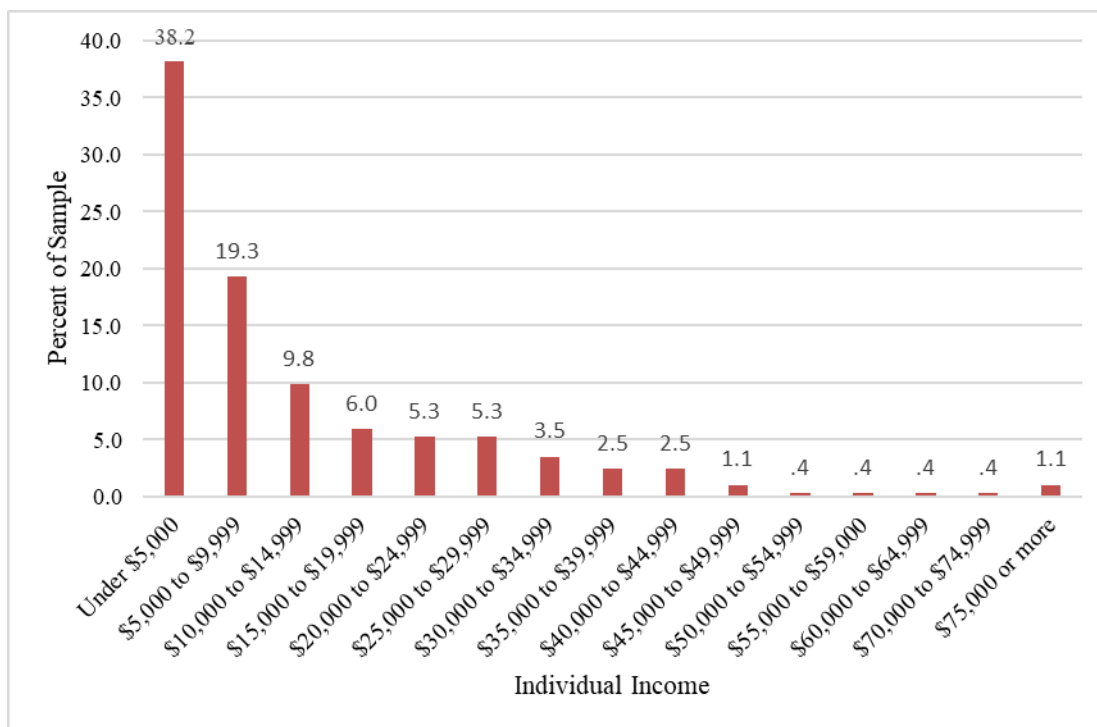
Instrumentation and Data Collection Procedures

The bioecological perspective, which proposes that human behavior results from interaction between biological and environmental factors (families, communities, organizations and broader society), provided the framework for identifying factors that influence health and wellness (Bronfenbrenner & Ceci, 1994). The survey was adapted from previous surveys administered at Cankdeska Cikana Community College (CCCC); the original survey, based on the work of the Northwest Area Indian Health Board in 2005, focused on prevalence of diabetes and diabetes risk factors using items drawn from the Behavioral Risk Factors Surveillance System (BRFSS). Between 2009 and 2015, the survey was continuously updated based on revisions to the BRFSS and community needs, adding items regarding health (including behavioral health), adverse childhood experiences, and social determinants of health such as nutrition, housing,

and child care (see Table 2). The anonymous survey was set up in Survey Monkey, and administered using iPads, allowing data to be stored in a secure location.

Table 2: *Items in Community Assessment.*

Variables	Item	Values
Long Range Outcomes		
General Health	How would you describe your general health?	1=Poor, 2=Fair, 3=Good, 4= Very good, and 5=Excellent
Life Satisfaction	In general, how satisfied are you with your life?	1=Very Dissatisfied to 4=Very Satisfied (recoded original)
Mid Range Outcomes		
Days Physical Health Not Good	Now, thinking about your PHYSICAL health, for how many days in the last 30 days was your physical health not good.	0-30
Days Mental Health Not Good	Now, thinking about your MENTAL health, for how many days in the last 30 days was your mental health not good?	0-30
Days Poor Health Keep from Usual Activities	During the past 30 days, for about how many days did poor physical or mental health keep you from doing your usual activities, such as self-care, work, or recreation?	0-30
Days Pain Impacted Usual Activities.	During the past 30 days, for about how many days did pain make it hard for you to do your usual activities, such as self-care, work, or recreation?	0-30
Depression	PHQ8: Scale composed of 8 items measuring presence of depressive symptoms in the past 2 weeks.	Items: 0-31 days Scale: 0-24
Individual factors		
Demographics	Age, gender, income	
Risk Factors	Binge drinking, smoking, BMI	
Family		
Adverse Childhood Experiences Scale (ACES)	10 questions measuring trauma prior to age 18.	Items: Yes, No Scale: 0-11
Open-ended comments		

A team, including researchers, CCCC staff, and other volunteers representing organizations serving on the workgroup, conducted face to face interviews at CCCC

and in each of the community's four districts (three in wellness centers and one at CCCC). The 15-member team participated in an initial day-long training event, a meeting each morning prior to data collection, and a wrap-up meeting each evening after data collection was completed. Team members played several roles: providing transportation, greeting individuals when they arrived, overseeing food that was available throughout each data collection period, maintaining the iPads and internet access, signing people in, conducting face to face interviews, assisting with child care, and managing distribution of incentives. Arrangements were made for crisis referrals as needed to Indian Health Services Behavioral Health staff.

Face-to-face interviews were conducted with: 1) Head Start parents during the time they were invited to participate in an annual Head Start celebration at the end of the spring semester, and 2) community members from 10 am-1 pm and 4 pm-7 pm daily, Monday July 20, through Thursday, July 23, 2015. Each interviewer greeted the participant, led them to a private space for the interview, reviewed the informed consent form, and recorded the results of the interview using the iPad to access the Survey Monkey survey. Interviews ranged from 10 to 45 minutes. At the conclusion of each interview, individuals were given a gift card and invited to have a meal.

Data Analysis

Quantitative data were analyzed using SPSS 23. Descriptive statistics were used to summarize measures of health, wellness and life satisfaction. Life satisfaction was recoded so that 1=Very Dissatisfied and 4=Very Satisfied. Correlations between these measures were calculated, then stepwise multiple regression analyzed the relationship between the health and wellness variables (general health, poor health and mental health days, days impacted, and pain) and life satisfaction. The influence of demographics on the health, wellness, and life satisfaction variables was examined using regression for age, t-test for gender, and ANOVA for income.

To examine the relationship between risk factors, demographics, and the health, wellness, and life satisfaction variables, the BMI variable was created and mean and standard deviation calculated. The influence of demographics on risk factors was calculated using regression for age and obesity, t-test for gender and obesity, and ANOVA for age and obesity; t-test for age and smoking, chi square for gender and income and smoking; and regression for age and number of days binge drinking, t-test for gender and binge drinking, and ANOVA for binge drinking and income. How the risk factors influenced health, wellness, and life satisfaction was determined using regression for obesity and binge drinking and t-test for smoking.

Frequencies were calculated to describe child care needs, sources of income, living situation, access to health care, transportation, and communications.

Frequencies were calculated to determine the prevalence of adverse experiences in childhood. The total number of Adverse Childhood Experiences (ACEs) that each participant reported was computed; whether the number varied by demographics was calculated using regression, t-test, and ANOVA. Correlations between the number of ACEs experienced and health, wellness, and life satisfaction variables were computed.

Open-ended comments were categorized by placing the comments into a Word table and identifying phrases within each comment (the unit of analysis). Categories and subcategories were then developed through an iterative process, with two researchers reviewing a subset of comments, developing initial categories, comparing and combining, and coding another subset of comments. The draft category schemes were presented to the workgroup for feedback and revised. Then all comments were coded.

Results

To answer the research question, "What individual, family and community factors influence health (including behavioral health), wellness, and life satisfaction of

American Indians living in rural, tribal communities?", the level of health, wellness, and life satisfaction of participants is first described. Then factors influencing health and wellness, individual, family, and community, are presented, in order to determine which influenced individuals' outcomes. Finally, the most important community needs identified by community members are presented.

Level of Health, Wellness, and Life Satisfaction

Forty-four percent of participants rated their general health as *Good* (see Figure 2). The average level of general health was 2.99 (SD=0.971) based on a scale of 1=poor to 5=excellent (see Table 3). They reported 4.97 poor physical health days in the past 30 days, compared with 4.44 poor mental health days. Poor health limited functioning 3.4 days in the past 30 days. The average number of days impacted by pain was 4.48. People completing the survey rated their life satisfaction highly (M=3.29, SD=.651; scale 1=Very Dissatisfied to 4=Very Satisfied); 57% (N=162) rated their level of satisfaction as *Satisfied* (see Figure 3).
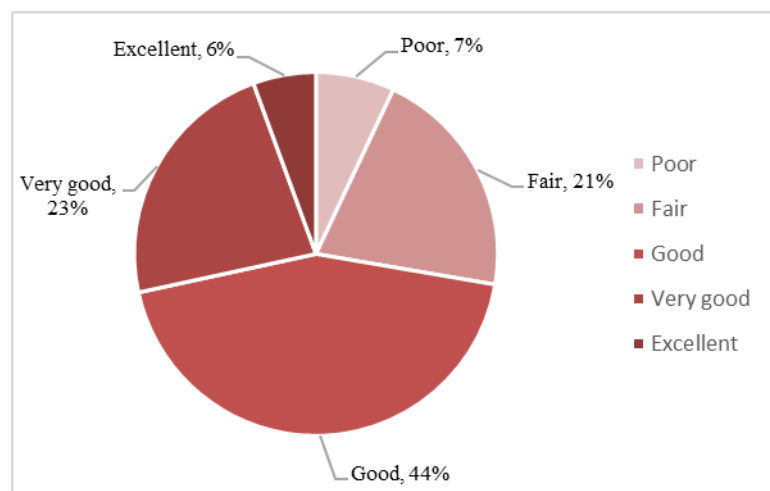
Figure 2: *Responses to Item on General Health.*

Table 3: *Reported Average Level of General Health.*

Health	Mean	SD
General Health	2.99	0.971
Days Physical Health Not Good	4.97	8.86
Days Mental Health Not Good	4.44	7.489
Days Poor Health Keep from Usual Activities	3.40	7.392
Days Pain Impacted Usual Activities	4.48	8.22
Life Satisfaction	3.29	.65

Figure 3: *Ratings of Life Satisfaction.*
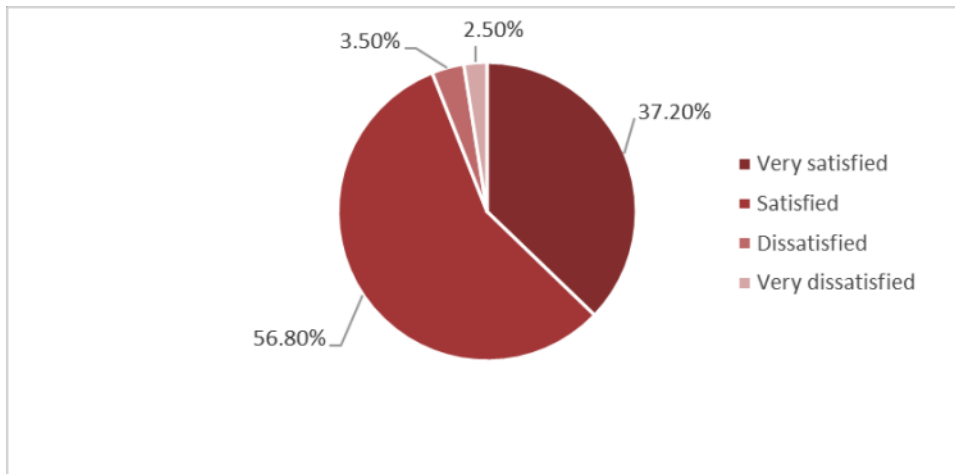
When correlations between the variables were calculated, general health was negatively correlated with number of poor physical health days, number of poor mental health days, pain, and number of days poor health kept one from usual activities (see Table 4). In other words, people with fewer poor physical and mental health days, fewer days that kept them from usual activities, and lower ratings of pain rated their general health higher. Pain was positively correlated with number of poor physical health days, number of poor mental health days, and number of days poor health kept one from usual activities; the higher the pain rating the more poor health days and more days that poor health kept one from usual activities.

General health and life satisfaction were positively correlated; people who rated their general health as good also rated life satisfaction higher. Life satisfaction was negatively correlated with number of poor mental health days and the number of days poor health kept one from usual activities. People who had higher life satisfaction reported fewer poor mental health days and days that poor health kept them from their regular activities.

Table 4: *Correlations between Health, Wellness, and Life Satisfaction.*

		Physical Health	Mental Health	Poor Health Prevent Activities	Pain	Life Satisfaction
General Health	Pearson Correlation	-.305**	-.214**	-.169**	-.264**	.198**
	Sig. (2-tailed)	.000	.000	.004	.000	.001
Physical Health	Pearson Correlation		.445**	.582**	.615**	-.064
	Sig. (2-tailed)		.000	.000	.000	NS
Mental Health	Pearson Correlation			.371**	.343**	-.253**
	Sig. (2-tailed)			.000	.000	.000
Poor Health Keep from Usual Activities	Pearson Correlation				.580**	-.138*
	Sig. (2-tailed)				.000	.019
Pain	Pearson Correlation					-.183**
	Sig. (2-tailed)					.002

Note. N=285.
**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

The relationship between health and mental health variables (General Health, Physical Health, Mental Health, Days Impacted by Poor Health, and pain) and life satisfaction was examined using multiple regression. General health, poor health and mental health days, days impacted by poor health, and pain explained 12% of the variance in life satisfaction (R=.34, p=.000). Because the correlations between the variables were high, multiple stepwise regression was used to see which of the

variables were best predictors of life satisfaction. The number of poor mental health days and the rating of general health entered the model, explaining 8.6% of the variation in life satisfaction (R=.29, p=.000).

Biopsychosocial Factors that May Influence Health and Wellness

Individual characteristics (demographics, risk behaviors), family factors (access to child care, violence), and environmental factors (safety, access to health care, transportation, the economy, access to educational institutions, housing) were assessed.

Individual Characteristics that Might Influence Health, Wellness, and Life Satisfaction

Demographics. The level of general health varied by age (R=.291, p=.000); as age increased, ratings of general health were lower (see Table 5). As age increased, the number of poor physical health days (R=.165, p=.005) and days when usual activities were impacted by pain (R=.178, p=.003) also increased. None varied by gender or income.

Table 5: *Individual Characteristics and Health and Wellness.*

Health and Wellness	Age	
	R	p
General Health	-.291	.000
Days Physical Health Not Good	.165	.005
Days Mental Health Not Good	NS	NS
Days Poor Health Keep from Usual Activities	NS	NS
Days Pain Impacted Usual Activities	.178	.003
Life Satisfaction	NS	NS

Note. NS=Not Significant

Risk Behaviors. Obesity, tobacco, and alcohol use are correlated with poor health outcomes in other studies. In this study, the average BMI (Body Mass Index)

was 29.95 (SD=6.83; Minimum=17.64, Maximum=70.41). According to the Centers for Disease Control and Prevention, an adult with BMI below 18.5 is considered "Underweight"; between 18.5 and 24.9 is considered "Normal"; between 25.0 and 29.9 is considered "Overweight"; and 30.0 and above is considered "Obese." Forty percent of participants were obese (see Figure 4). BMI did not vary by gender or age. People who were currently smoking had a lower BMI score than those who were not smoking. People who were normal or overweight rated their general health higher than people who were underweight or obese (F=4.325(3), p=.005); the higher the BMI, the more poor physical health days (R=.133, p=.025) and poor mental health days (R=.136, p=.022). No other health, wellness or life satisfaction variables were associated with obesity.

Figure 4: *Body Mass Index (BMI).*
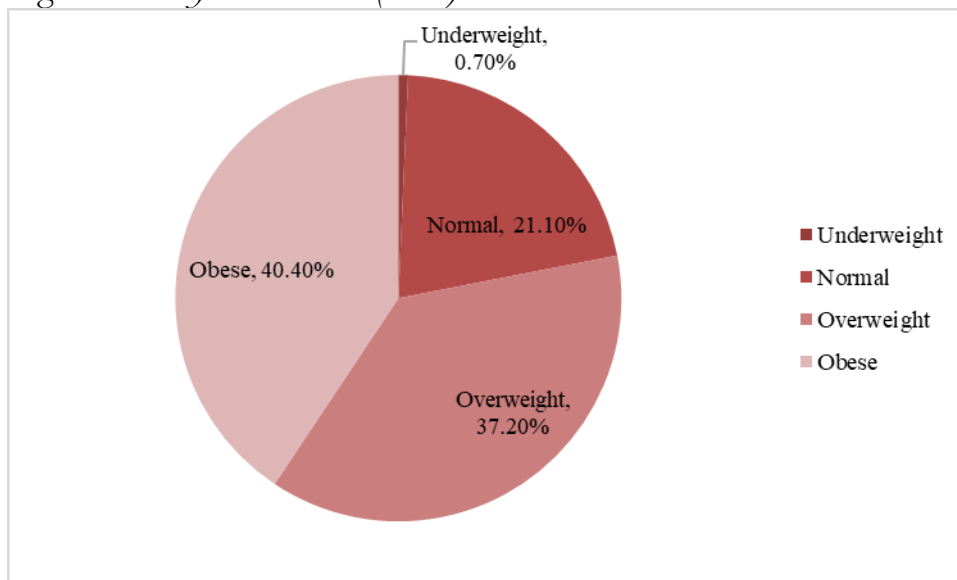
Eighty percent of the participants had smoked more than 100 cigarettes at some point in their life; 55% were currently smoking. Currently smoking was not associated with any health, wellness and life satisfaction variables. Based on the definition of binge drinking, participants were asked "how many times during the past

30 days did you have 5 or more drinks if you are male, 4 or more drinks if you are female on an occasion?"; 188 (66%) of the participants said they had not engaged in binge drinking in the past 30 days (see Figure 5). Ninety-seven (34%) had engaged in binge drinking at least one time. Binge drinking varied by gender (t=3.18(126.85), p=.002); men reported much higher rates of binge drinking than women. People who reported higher rates of binge drinking were also more likely to be smoking (t=2.94(272.56), p=.004). Rates of binge drinking did not vary by age or obesity.

Figure 5: *Binge Drinking in the Past 30 Days.*
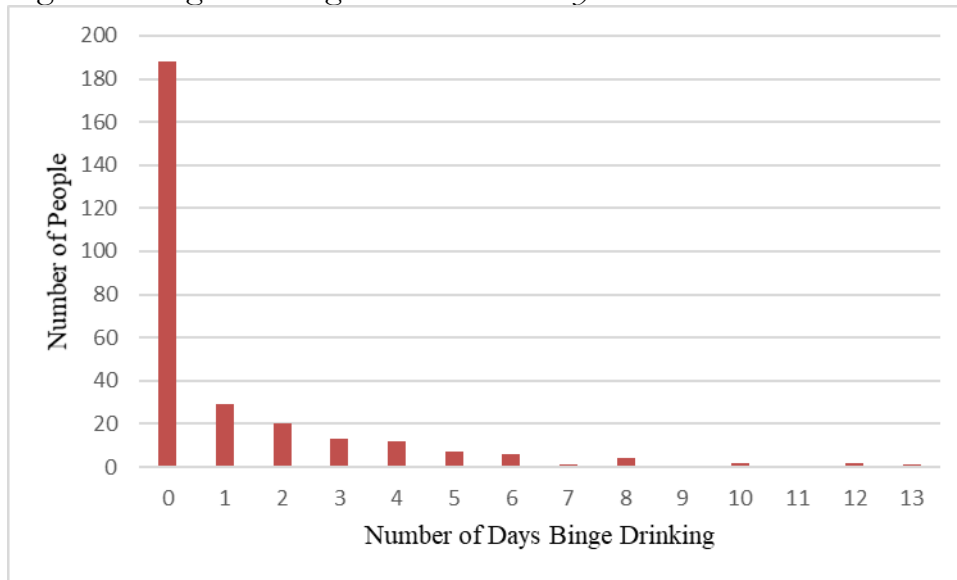
Family Factors

Lack of childcare prevented or interfered with the ability to work outside the home; 25% said they needed child care, and 32% said that relatives provided child care. Most needed were child care at times other than the regular work day (8 to 5), when child care is closed for holidays, and weekends. The most common sources of income were Food Stamps and Employment. Only 20% of participants owned their own home; a small number said they changed their living situation often. Four were currently homeless and 41% had been homeless at some time.

To identify early childhood experiences (primarily within the family) that might influence health outcomes in adulthood, participants were asked whether they had experienced any of 10 adverse experiences prior to the age of 18. The most common childhood adverse experience was having parents who were never married, separated, or divorced (see Table 6). The next most common childhood adverse experience was living with someone who was a problem drinker or alcoholic.

Table 6: *Frequency of Adverse Childhood Experiences (ACEs) Prior to Age 18 (N=285).*

Adverse Childhood Experience	Yes	%	Missing
Did you live with anyone who was a problem drinker or alcoholic?	154	54.0	1
Did you live with anyone who used illegal street drugs or who abused prescription medications?	82	28.8	2
Did you live with anyone who served time or was sentenced to serve time in a prison, jail, or other correctional facility?	83	29.1	3
Were your parents separated or divorced (or never married)?	168	58.9	3
Did your parents or adults in your home ever slap, hit, kick, punch or beat each other up?	108	37.9	2
Before age 18, how often did a parent or adult in your home ever hit, beat, kick, or physically hurt you in any way? Do not include spanking.	90	31.6	1
How often did a parent or adult in your home ever swear at you, insult you, or put you down?	122	42.8	3
How often did anyone at least 5 years older than you or an adult, ever touch you sexually?	45	15.8	6
How often did anyone at least 5 years older than you or an adult, try to make you touch them sexually?	33	11.6	7
How often did anyone at least 5 years older than you or an adult, force you to have sex?	28	9.9	7

Most had experienced at least one adverse experience (86.5%); 50.3% had experienced three or more adverse experience (see Figure 6), considered to be a high level of trauma by Burchill-Blaisdell, Goldbaum, and Serafin (2011). Women experienced more ACEs than men (t=2.01(202.38), p=.046). The number of ACEs varied by age (R=.211, p=.000); people who were older reported more adverse experiences prior to the age of 18. The number of ACEs was positively correlated

with the number of poor mental health days (R=.155, p=.006) and depression (R=.241, =-.000); the higher the number of ACEs, the more poor mental health days reported and the higher the depression score (PHQ8). The number of ACEs influenced ratings of life satisfaction (R=-.178, p=.003; as the number of ACEs increased, life satisfaction decreased.

Figure 6: *Number of ACEs Experienced by Participants.*
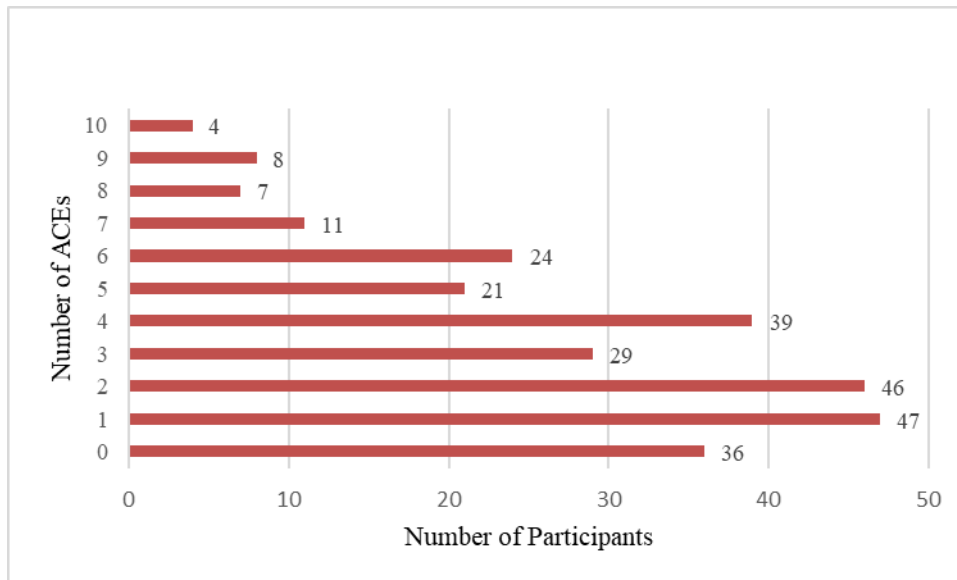
Community Factors

All but six participants reported having some sort of health care coverage; the most common types of health care were Medicaid (58%) and Indian Health Service (56%). Fifty-six percent of the participants had a personal doctor or health care provider. The most common mode of transportation was one's own car (54%). The next most common mode of transportation was riding with relatives (37%). Seventy-four percent (211 people) had access to a working phone. People completing the survey were more likely to access the internet at home or through their phone (36% and 34% respectively).

When asked to comment on what the most important health needs were, participants identified factors that influence health outcomes, the most important being health care access and quality (see Table 7). Other factors influencing health were lack of community activities, especially for youth; criminal justice issues; lack of child care and education; the broader environment; employment; and family issues.

Table 7: *Factors that Influence Health Outcomes.*

Category	N	Comments
Health Care (Access, Quality, General)	32	Being able to see a doctor other than waiting all day or going to the emergency room.
		No health care after 4:30.
		Better dentists for children [and] have it available on the reservation.
		No transportation for elders for doctor appointments.
		Referrals are hard to get, not enough services, can't get treatment
Community Activities	15	Alcoholism and drug abuse. Caused by lack of housing and lack of jobs, no mobility to get to gyms, etc.... Nothing else to do.
		Better wellness center for kids, keep them busy, more activities Library for kids.
		Kids like to do a lot of damage. Give them activities to make them less destructive; they have nothing to do.
		More family oriented activities where parents can be with children, feel good about themselves.
Criminal Justice	6	More law enforcement with knowledge about drugs and alcohol.
		More police patrolling, more hiring, see police out in community more, too short handed.
Child Care And Education	6	Daycare activities for evenings; many don't have responsible babysitters. Child care is very needed. Can't leave kids with adults who have been drinking, etc.; not a safe environment.
Environment	6	Maintenance of lawns, trash clean up, especially around public buildings, pull broken down cars out, old appliances.
Family (Dissolution, Parenting, Support	6	A lot of children not in their own homes.
		Need to learn to parent better & morally.
		More support to help families.
Employment	4	More jobs, more training to get a good job.
Elderly	2	Elderly care, checking on them, help them get around.
Gambling	1	

Participants' Opinions about Most Important Health Needs

When asked to comment on the important health needs at Spirit Lake Nation, 185 people identified behavioral health issues as most important, followed by chronic diseases, especially diabetes (see Table 8).

Table 8: *Participants' Ratings of Most Important Health Needs.*

| Category	N	Subcategories	Comments
Behavioral Health	185	Substance use, mental health, residential care and treatment	Suicide prevention in the homes and out in the field.
			Resources for males' mental and emotional health.
			Abuse of drugs, it use to be ETOH [alcohol] but now its drugs and it's the harder stuff. There are things the kids are doing now, these young kids do it daily and it don't bother them.
			The most important health issues here are attributed to prescription drugs, and the abuse of prescription drugs.
			Tribe needs to think about building treatment centers, having local people coming in and helping youth. Treatment resources to get help people with drug problems, alcohol treatment.
Chronic Disease	119	Diabetes, Cancer, , High blood pressure, Kidney/Dialysis, Liver, Asthma, Arthritis, Heart Disease, HIV/AIDS, Hepatitis C, Autism, Stroke	There seems to be a lot of death around cancer.
			Diabetes, need more treatment, more information.
			Hepatitis C using bad needles
Prevention	4	Reproductive Health, Health Education	See a lot of kids with head lice, untreated sores.

Discussion

Factors Influencing Health, Wellness, and Life Satisfaction

Spirit Lake community members participating in the community assessment addressed the research question, "What individual, family and community factors influence health (including behavioral health), wellness, and life satisfaction of

American Indians living in rural, tribal communities?" Our logic model regarding individual, family, community, and cultural factors that influence health outcomes was based on a traditional medicine wheel recognized by Dakota and Lakota Medicine Men (see Figure 7). The four colors and their alignments represent direction: black - West, red - North, yellow - East, and white – South. The most common individual demographic factor influencing health outcomes was age. As age increased, people rated their general health lower, the number of poor physical health days and the days when usual activities were impacted by pain higher; they reported higher rates of adverse childhood experiences. Having more health challenges as one ages is logical. Why people who are older would report more childhood adverse experiences is unclear; other studies have found that older adults report fewer ACEs (Logan-Greene, Green, Nurius, & Longhi, 2014; Mellies, 2016).

Figure 7: *Logic Model: Individual, Family and Community Factors Influencing Health, Wellness, and Life Satisfaction.*
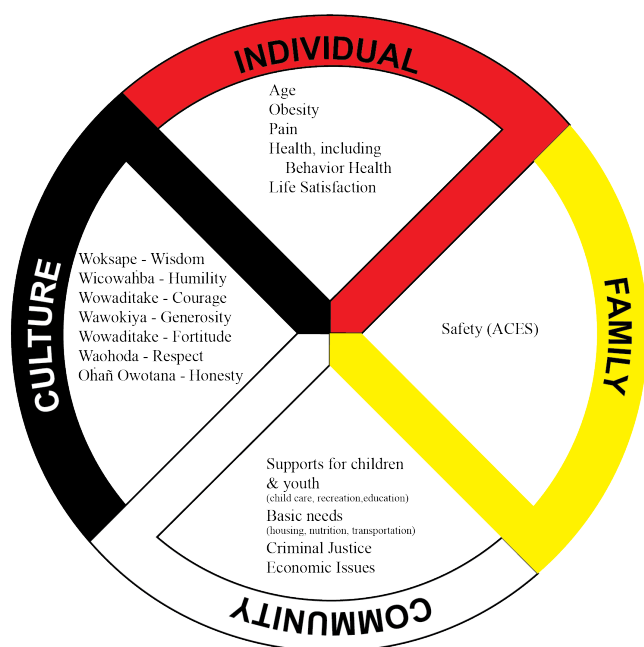
Obesity was associated with general health and the number of poor physical and mental health days; the higher the level of obesity, the lower the rating of health and the higher the number of poor health days. Obesity did not influence life satisfaction. The other individual risk factors included in this study, binge drinking and currently smoking, were not associated with any of the health, wellness, and life satisfaction factors.

Family factors reflecting lack of safety in childhood, measured by ACEs, are thought to influence health, wellness, and life satisfaction (Gilbert et al., 2015; Mellies, 2016). Participants in this study reported a high number of ACEs; ACEs were associated with the number of poor mental health days and depression. Unlike other studies, physical health did not vary by number of ACEs. Participants identified community factors that might influence health, wellness, and life satisfaction: lack of supports for children such as child care, recreation, and education; basic needs including housing, nutrition, and transportation; criminal justice; and economic issues.

Summary of Health, Wellness and Life Satisfaction Outcomes

Generally, ratings of tribal members' level of general health was average: 2.99, based on a range from 1=Poor to 5=Excellent; 27% rated their level of general health as poor or fair, similar to the rates of the Northwest Tribal BRFSS (Northwest Portland Area Indian Health Board, 2003) and higher than the same item in the 2011 BRFSS state and national rate (University of Wisconsin Population Health Institute, 2015; Centers for Disease Control and Prevention, 2014; see Table 9). The number of days in the past 30 days that one's physical health and mental health were not good averaged 4.97 and 4.44 days respectively, similar to the number of poor physical and days in the CHPRR Study (Poltavski, Holm, Vogeltanz-Holm, & McDonald, 2010) and higher than the North Dakota and National BRFSS rates in 2011. The average

number of days that poor physical and mental health kept people from their usual activities, 3.40 days, was slightly lower than the CHPRR study. The average number of days in the past 30 days impacted by pain was 4.48. The number of days where usual activities were impacted by pain also varied by age; as age increased, people were more likely to report more days impacted by pain. Participants rated their life satisfaction above average (M=3.29, scale range from 1=Very Dissatisfied to 4=Very Satisfied); 94% said they were satisfied or very satisfied.

Risk factors (obesity, binge drinking, and smoking) were similar to other studies in tribal communities (Centers for Disease Control and Prevention, 2014 Northwest Portland Area Indian Health Board, 2003; Poltavski, Holm, Vogeltanz-Holm, & McDonald, 2010, University of Wisconsin Population Health Institute, 2015) and higher than state and national rates. Forty-one percent of the participants in this study were obese. Eighty percent had smoked more than 100 cigarettes at some point in their life, greater than any other study. Fifty-five percent were currently smoking, comparable to the CHPPR 2014 study and higher than state and national levels. Binge drinking rates were similar to those in the Northwest Tribal BRFSS study and higher than all other groups.

Table 9: *Comparison of Health with Spirit Lake Reservation Adult Population and Other Similar Studies.*

Health and Wellness		This Study	CHPPR Study (2004)	Northwest Tribal BRFSS	BRFSS 2011 North Dakota	BRFSS 2011 Nationally
General heath	Mean (SE, CI 95%)	2.99	2.93 (.06, (2.82, 3.03))	-	-	-
	% rating health as poor or fair	27.0%	-	27.7% CI 95% (25.0, 30.5)	14.7%	Median 17.2%
Days poor physical health	Mean (SE, CI 95%)	4.97	4.70 (.44, (3.83, 5.57))	-	2.7 State Minimum = 1.2 State Maximum = 4.5	Median =3.7
Days poor mental health	Mean (SE, CI 95%)	4.44	4.92 (.47, (4.00, 5.84))	-	2.4 State Minimum = 1.3 State Maximum = 3.8	Median =3.5
Days poor physical and mental health impact activities	Mean	3.40	3.66		21.1%	Median 23.6

Limitations of the Study

This sample was more likely to be female and lower income than the general Spirit Lake adult population and nationally, although it was representative in terms of age, marital status, and high school graduation rates. The response rate was similar to other studies in the same region (Poltavski, Holm, Vogeltanz-Holm, & McDonald, 2010). To increase representative participation, interviews were conducted in each of the four communities, with both day and evening interviewing periods. This appears

to have increased representation by community members who were not working outside the home and reduced participation by community members with higher income, probably through employment.

Conclusion

Results of the Spirit Lake Tribe community survey provide information to better understand community needs and guide program development; it also contributes to knowledge regarding issues affecting American Indian families in other rural, tribal areas. Overall life satisfaction of participants was high. The results confirm findings reported in studies in other communities, such as low income and high levels of tobacco use and obesity. These did not, however, influence life satisfaction and, for one author, raises the question of a correlation to resiliency of Native people. The number of poor mental health days, level of general health, and number of ACEs DID influence life satisfaction. Participants overwhelmingly identified substance use and mental health issues as the most important community health needs. Although most community members had health care coverage, they identified access to and quality of health care as primary health care needs.

The information confirms the importance of family and community as core to improving life satisfaction. Strategies to 1) protect children from adverse childhood experiences and 2) improve access to quality health care, especially mental health and substance use treatment, are key.

The Comprehensive Community Assessment (CCA) has contributed to the knowledge and understanding by community members, especially as related to addressing issues. CCCC leadership for the project led the development of a "cultural narrative" of the CCA to better explain what it is and its importance to the community, using a Dakota context to describe the assessment process and the implications for the Spirit Lake community. This was done to help with the
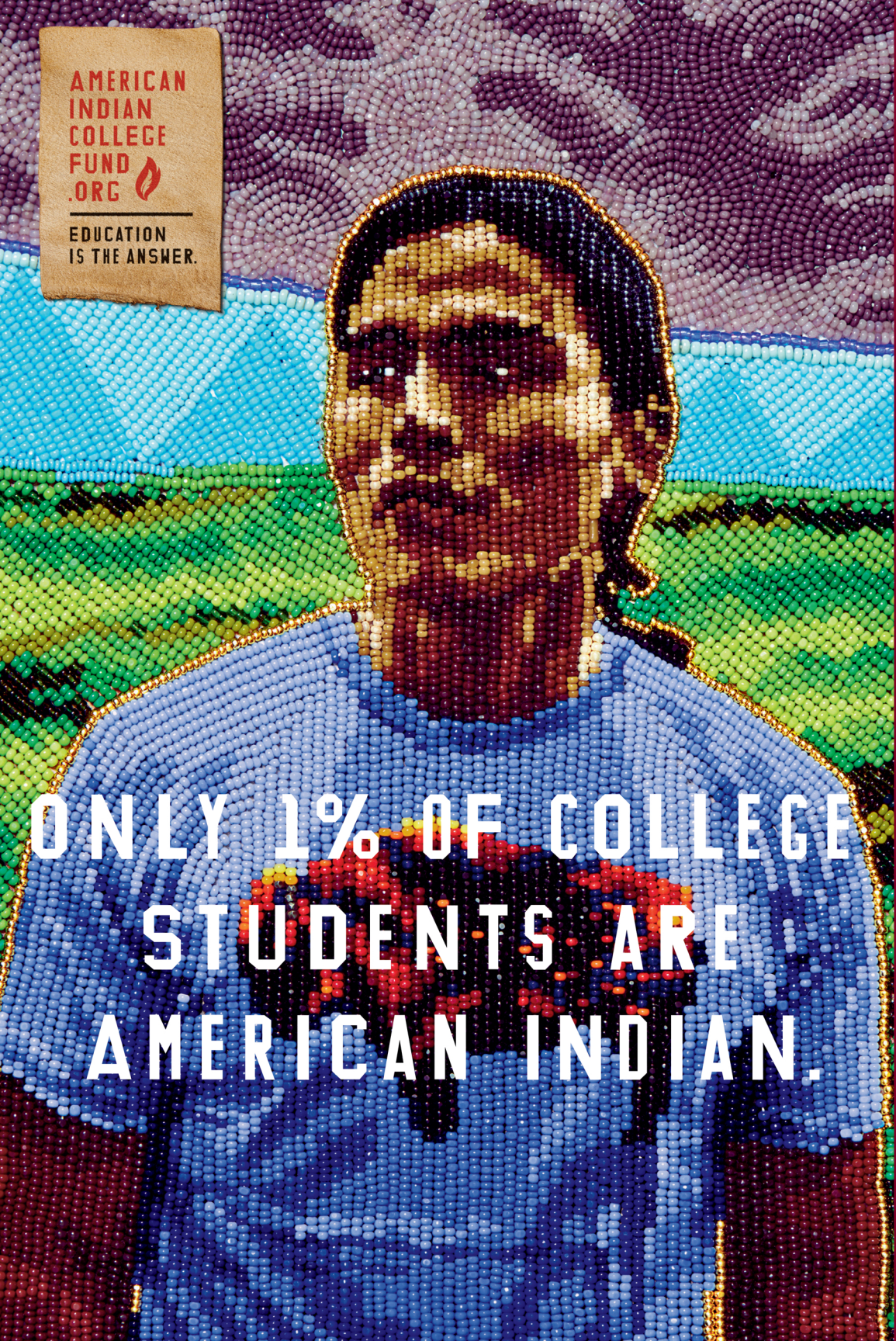
dissemination efforts that were conducted throughout the reservation community and with key stakeholder groups (i.e. Tribal Council, CCCC Board of Regents, Spirit Lake Tribal Elders, and program directors). The goal of the cultural narrative is to promote community engagement in understanding the assessment and subsequent action to protect children and to improve conditions on the reservation. The cultural narrative also emphasizes that community assessments are done periodically and not a one-time process, so that reflection, discussion, and action toward change occurs at regular intervals. CCCC is planning the follow up assessment and review for 2020.

The process of conducting the needs assessment in this community as described in the CCA report and the cultural narrative, could be adapted successfully by others to support their efforts to obtain resources. CCCC has successfully used the CCA for soliciting funding opportunities for community projects. The CCA contributes to policy development at tribal, state, and national levels, to identify strengths and address needs for this isolated reservation community and other similar areas.

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